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ARCHEOLOGICAL MITIGATION OF THE J.S. BERRY BRICK MILL (18BC88) AND PAWLEY STONEWARE KILN (18BC89) BALTIMORE, MARYLAND

DRAFT REPORT

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PREPARED FOR:

Maryland Stadium Authority
Warehouse at Camden Yards
33 West Camden Street, Ste. 500
Baltimore, Maryland 21201-2435

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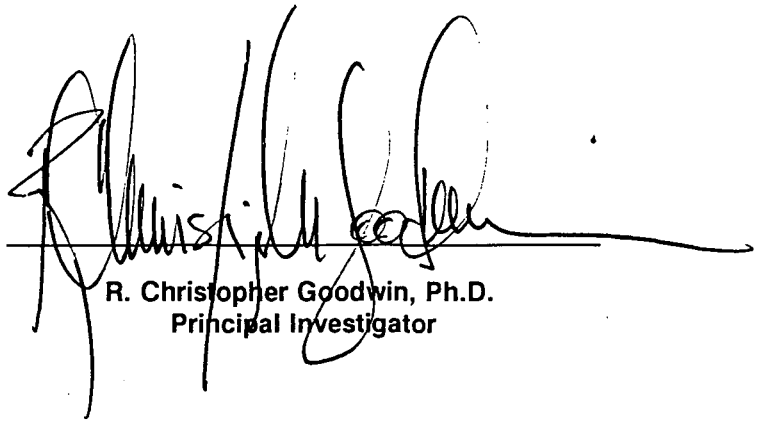

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Principal Investigator

by

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ABSTRACT

This report presents the results of Phase III archeological mitigation at the site of the Baltimore Ravens' Football Stadium, Baltimore, Maryland. These investigations were requested by the Maryland Stadium Authority in compliance with Maryland Historic Preservation Legislation, Article 83B, Sections 617-618. Site development plans comprise the construction of a football stadium and associated parking areas. R. Christopher Goodwin & Associates, Inc. conducted these investigations in May 1996, on behalf of the Maryland Stadium Authority.

A data recovery plan was developed in accordance with State and Federal standards and guidelines. The mitigation plan was developed in accordance with the Advisory Council on Historic Preservation's *Treatment of Archeological Properties: A Handbook*.

The Pawley Stoneware Kiln (18BC88) and the J.S. Berry Brick Mill (18BC89) initially were identified in 1989, during archeological investigations related to the construction of Oriole Park at Camden Yards. Both sites are located on the southeast corner of Russell and Hamburg Streets in the City of Baltimore, specifically in the former Camden Yards Industrial park.

Current investigations were designed to mitigate the effects of relocation of utilities and construction of the Ravens' football stadium on both of these resources. The mitigation plan included archival research and archeological investigations aimed at answering specific research questions. Research questions and subsequent analysis for the Pawley kiln were concerned with the types of vessels produced, and the evidence of technology and production methods exhibited by kiln furniture and vessel wasters. Research questions for the J.S. Berry brick mill focused on an interpretation of the original form and function of the wooden structure. Subsequent research and analysis focused on recording the physical aspects of the mill, and interpreting the original form of the feature.

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CHAPTER I

INTRODUCTION

Introduction

This report presents the results of Phase III archeological mitigation at the site of the Baltimore Ravens' Football Stadium, Baltimore, Maryland. These investigations were requested by the Maryland Stadium Authority in compliance with Maryland Historic Preservation Legislation, Article 83B, Sections 617-618. Site development plans include the construction of a football stadium and associated parking areas. R. Christopher Goodwin & Associates, Inc. conducted these investigations in May 1996, on behalf of the Maryland Stadium Authority. Christopher Polglase, M.A., ABD served as principal investigator; Suzanne Sanders, M.A., managed the project and directed archeological field investigations; Martha Williams, M.A., M.Ed. conducted the archival research.

A data recovery plan was developed in accordance with State and Federal standards and guidelines including: the National Historic Preservation Act of 1966 (as amended), Executive Order 11593, the Archeological and Historical Preservation Act of 1974, the Archaeological Resources Protection Act of 1979 (as amended), and Title 36 of the Code of Federal Regulations, Parts 60-66 and 800, as appropriate. All proposed mitigative efforts adhere to *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994) and to *Archeology and Historic Preservation: The Secretary of the Interior's Standards and Guidelines*. The mitigation plan was developed in accordance with the Advisory Council on Historic Preservation's *Treatment of Archeological Properties: A Handbook*.

Project Location and Site Description

Sites 18BC88 and 18BC89 initially were identified in 1989, during archeological investigations related to the construction of Oriole Park at Camden Yards. Both sites are located on the

southeast corner of Russell and Hamburg Streets in the City of Baltimore, specifically in the former Camden Yards Industrial park (Figure 1). At the time of original investigations, the block was occupied by the Park's Sausage facility and associated parking lots. The block currently is occupied by parking lot D of Oriole Park at Camden Yards.

Pawley Stoneware Kiln (18BC88)

By the mid-eighteenth century, both earthenware and stoneware were produced in Baltimore. City directory listings for the first half of the nineteenth century show that the majority of Baltimore's potters worked in the Old Town and Fell's Point areas. However, as Baltimore's economy and population grew, a second center of the industry was established on Lexington Avenue. By 1820, there were 10 potters working within the City of Baltimore; however, only two produced stoneware. Most pottery manufactories were small individual operations.

James Pawley's pottery kiln, located at Cross and Russell Streets from approximately 1838 to 1858, was typical of small, individually owned, single kiln potteries. The kiln at 18BC88 was a round structure of the "updraft" type. In updraft kilns, heat rose through pottery stacked in the firing chamber, and exited through one or more openings in the kiln roof. Mr. Pawley was a business man involved in import and retail sales of English ceramic and pottery wares. In an arrangement typical of the early stoneware industry, he owned but did not operate the kiln. He employed one or more unknown potters, craftsmen, and apprentices, who produced the stoneware for his retail operations. These potters generally were itinerant, moving periodically from one kiln to the next. The potters in Baltimore were well known for their migratory tendencies.

Excavations in 1990, near the corner of Russell and Cross Streets, revealed the remnant of Mr. Pawley's operations: a circular stoneware kiln foundation, 3 m (9.84 ft) in diameter. Archeological deposits in the kiln mouth, firebox, and within the interior of the kiln included large quantities of kiln furniture, vessel wasters (primarily stoneware), brick, and charcoal that overlay the brick floor of the kiln (Kuranda et al. 1992). The kiln contained such vast quantities of debris that only a sample of kiln furniture was retained.

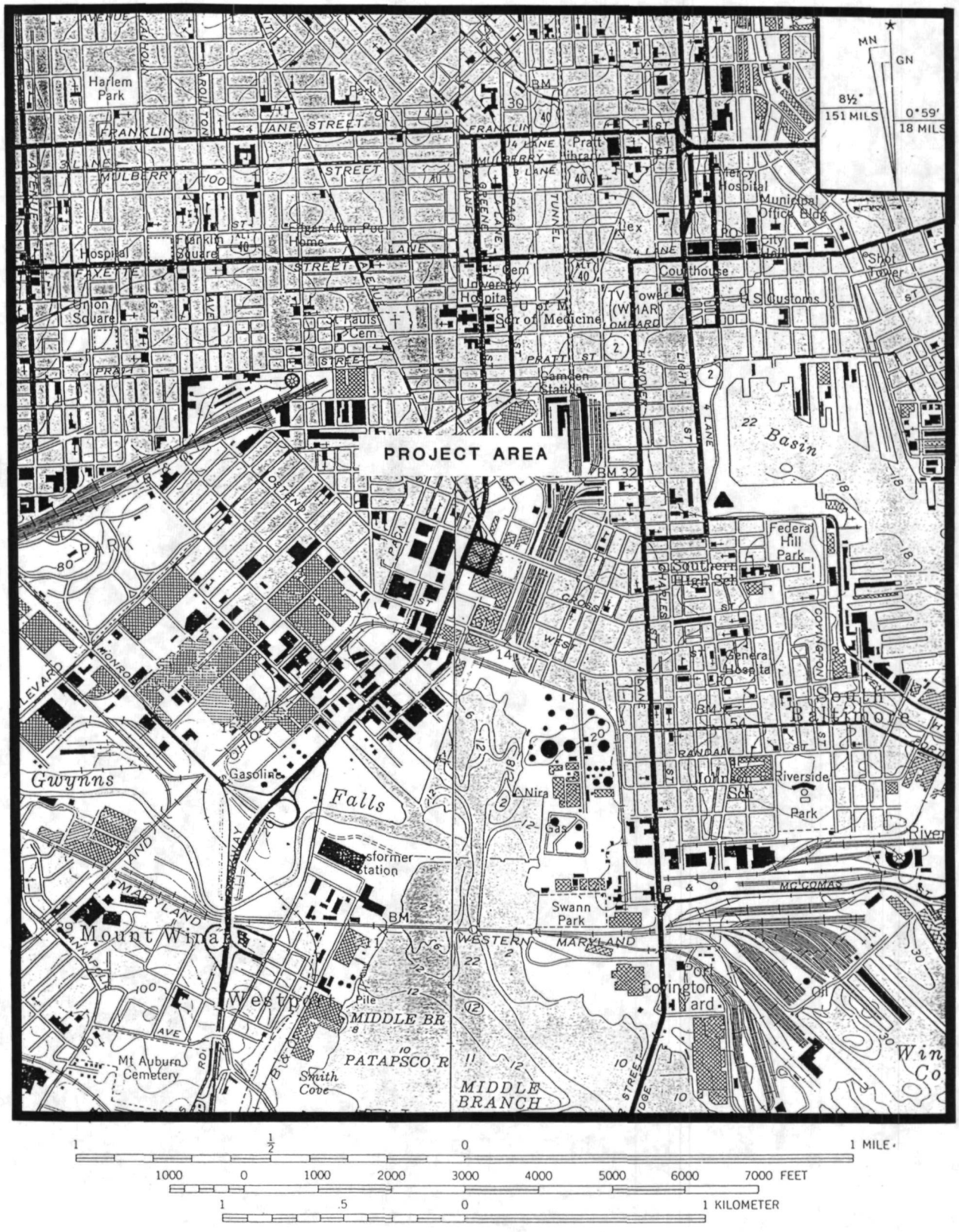


Figure 1. Excerpt from the U.S.G.S Baltimore West Quad showing the locations of the Berry Brick Mill (18BC89) and the Pawley Stoneware Kiln (18BC88)

The Pawley stoneware kiln is representative of the type of independent enterprise that flourished in the vicinity after the establishment of rail lines and Camden Station. The kiln site yielded evidence of the technology and the products of an early Baltimore stoneware potter. This pottery kiln and its artifacts represented the non-mechanized individual operation characteristic of the earliest industrial enterprises in the Camden Yards area; the kiln was anachronistic, because it was in operation during a period when Baltimore's potting industry was becoming mechanized. The stoneware kiln has a larger significance because the decorative motifs used by the potter on the products of the kiln, having been dated and documented, will be identifiable universally. These dated motifs can be used as chronological markers, and products of this potter can be used to establish historically important regional trade and mercantile networks. Information from the kiln site not only adds to the database for manufacturing materials and techniques, but also to the scope of analytical and interpretive studies.

Preliminary background research was conducted to provide basic documentation of land use changes and of the complex historical development of the project area. Field investigations consisted the completion of the excavation of the previously identified feature, and examination of undisturbed adjacent areas for evidence of related structures and features.

J.S. Berry Brick Mill (18BC89)

Due to its proximity to the Patapsco River and to the Chesapeake Bay, the Camden Yards area historically contained large deposits of marine and alluvial clays. These readily available clay deposits rendered the area a prime location for brickmaking enterprises. Brickmaking was a major industry in Baltimore from the eighteenth through twentieth centuries; brickmaking families such as the Albrights, Berrys, Krebs, Nagles, Russells, and Warners originally controlled much of the real estate in the vicinity. The Berry family's involvement in Baltimore's brick making industry dated to ca. 1812. An early nineteenth century directory listing for this company showed a J. and T.L. Berry, "fireproof brick man," located on South Sharp Street, near Hill Street, within the present Sharp-Leadenhall district. Although tax records indicated that John W. Berry operated a brick kiln at

Russell and Hamburg Streets as early as 1838, the family's major brickmaking operation probably moved to the Russell Street location during the late 1850s. By 1858, John and George Berry had acquired all of the block, except for the Pawley lot; and, by the 1870s, the Berry brickmaking enterprise dominated the block.

Excavations near the intersection of Russell and Hamburg Streets exposed the remains of one of the Berry horse-powered pug mills. This was a large, circular wooden structure that represented the platform of the clay mixing vats. Subsequent construction and demolition events had little impact on the wooden structure. One-quarter of the feature was documented, it and the remaining three-quarters were left undisturbed, and preserved in place for later investigation. Although remnants of the associated steam powered mills located south of the horse-powered mill were identified and recorded at that time, these features retained little integrity, and their industrial, early twentieth century manufacturing context had been compromised by later construction and landscape modifications. As a result, the current mitigative efforts focused on the remaining wooden mill structure, with additional verification of the absence of associated features.

Five principal stages were involved in the brick-making process. After the clay was mined from pits, it was weathered; tempered with sand, grog, ash, or ground chalk; molded; dried; and, finally, fired in a kiln. An understanding of this technology permits an accurate interpretation of archeological and archival data relating to this site. The brick mill at the corner of Russell and Hamburg streets represents the second stage of brick production, mixing the weathered clays with tempering agents, before molding and drying. The mill also represents the early stages of mechanized mixing, using horse power to turn a circular mill; later versions were steam powered.

The J.S. Berry brick works was a significant industry in the vicinity. Four mills, two horse-powered and two steam-powered, were documented on Sanborn Fire Insurance maps. These features represent a technological watershed for the brick-making industry, because they document the change from manual to mechanized production in this basic industry.

Additional archival information was gathered using insurance records and maps, atlases, tax maps, property records, and from city directories housed in repositories throughout the

Baltimore-Washington Metropolitan area. Field investigations focused on the exposure of the remaining three-quarters of the wooded structure. and documentation of details of materials and construction techniques, aimed at a reconstruction of the appearance of the mill structure.

Research Objectives

Archeological mitigations were undertaken for each of these sites. Research designs and mitigation plans that included proposed archival and archeological methods were prepared for each site. The general objectives of these archeological investigations were to mitigate the effects of moving utility lines to accommodate the construction of the football stadium. These investigations were designed to address the previously identified cultural resources, as well as to ensure that potentially significant unidentified resources within their immediate vicinity were not affected by planned construction. The mitigative process included: (1) documenting the presence and integrity of additional features associated with the mill or the kiln; (2) documenting both sites, and gathering data necessary for interpretation of deposits and features; and, (3) making management recommendations concerning these resources. These objectives were met through a combination of detailed archival investigation, mechanized soil removal, hand excavated units, detailed recordation, and in-depth data analysis.

Archival investigations for the stoneware kiln focused on developing a clearer understanding of the technology of stoneware manufacture, along with more specific historical data concerning the actual operations of the Pawley kiln, and related retail operations. Similarly, background research for the Barry pug mill focused on a more in-depth context of brickmaking in Baltimore, and a more specific understanding of the technology of brickmaking.

Archeological mitigation for both sites entailed mechanical removal of overlying paving and fill; manual removal of fill materials within the features, manual excavation, and detailed recordation of remaining features or deposits. The mechanical clearing encompassed only those portions of both sites that yielded a concentration of artifacts or the presence of intact features associated

directly with the kiln or the mill; manual excavations focused on the mill or the kiln, or features directly related to these structures.

Organization of the Report

Chapter I contains a description of the project, and reviews the research objectives of the study. Chapter II reviews the specific research design and mitigation plan, and archival and archeological methods employed for this project. A brief historic context for Baltimore is presented in Chapter III. Chapter IV presents the results of the archival research and archeological investigations specific to the Pawley Stoneware Kiln (18BC88). The results of archival research and archeological mitigations for the Berry Brick Mill (18BC89) are presented in Chapter V. Chapter VI provides a summary of the project, and conclusions concerning the investigated resources.

Updated Maryland State Archeological Site Forms appear in Appendix I. The artifact inventories for both sites appear in Appendix II. The vessel catalogue for the Pawley Kiln (18BC88) appears in Appendix III. The comparative data for the Alexandria Pottery appears in Appendix IV. Resumes of key project personnel are presented in Appendix V.

CHAPTER II

RESEARCH DESIGN AND METHODS OF INVESTIGATION

Background

The current investigations were designed to mitigate the effect of relocation of utilities and construction of the Ravens' football stadium on the Pawley Kiln (18BC88) and the Berry Brick Mill (18BC89). The 1989-90 investigations had identified these sites and recommended further investigations in the event that the football stadium was constructed. These determinations were based on the presence of intact features and evidence of only localized and minimal subsequent disturbance from landscape modifications and construction.

A data recovery plan was developed in accordance with State and Federal standards and guidelines. Archeological mitigation was designed to entail archival investigations, mechanical removal of overlying paving and fill; manual removal of fill materials within the features, and manual excavation and recordation of remaining features or deposits. The plans for the current investigations were developed based on the findings of earlier investigations (Kuranda et al. 1992). The individual research designs and methods of investigation are presented below, first for the Pawley Kiln, and then for the Berry Brick Mill. Both of these sites are located in Maryland Research Unit 14, the Patapsco-Back-Middle drainages of the Piedmont Province (Figure 2). The appropriate historic period themes from the *Maryland Comprehensive Historic Preservation Plan* (Weissman 1986) for the site are Urban and Industrial.

The Pawley Stoneware Kiln

Introduction

By the mid-eighteenth century, both earthenware and stoneware were produced in Baltimore. City directory listings for the first half of the nineteenth century show that the majority of Baltimore's potters worked in the Old Town and Fell's Point areas. However, as Baltimore's

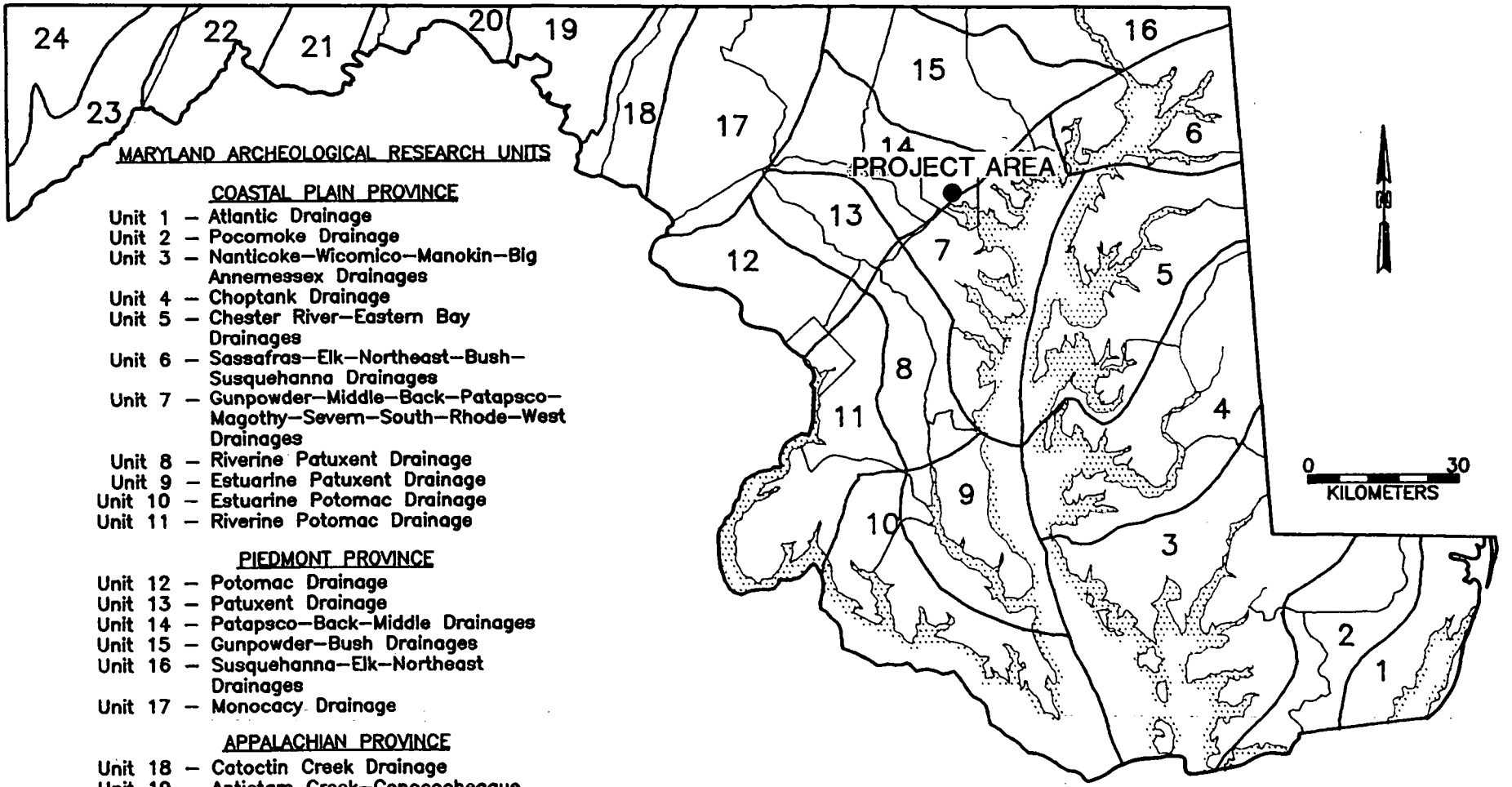


Figure 2. Map showing the locations of the Berry Brick Mill (18BC89) and the Pawley Kiln

economy and population grew during the period, a second center of the industry was established on Lexington Avenue. By 1820, there were 10 potters working within the City of Baltimore; however, only two produced stoneware. Most pottery manufactories were small individual operations.

James Pawley's pottery kiln at Cross and Russell Streets was typical of these small, individually owned, single kiln potteries. By the 1830s, Baltimore's pottery production was in decline, as methods changed from "handcraft to industry;" full-time potters replaced part-time craftsmen, and individual pottery shops were transformed into small industries. Mold-making replaced hand-throwing by the 1840s, as competition within the industry intensified during that decade. Nine documented Baltimore potteries vied with two potteries in Washington and one in Alexandria for shares of the regional market. By the last quarter of the nineteenth century, stoneware production in the United States had declined even further. Better methods of food packing had been developed and refined; furthermore, mass-produced glass containers, such as Mason jars, and refinements in the production of tin cans, reduced the need for heavier or less durable stoneware items.

The kiln excavated at Site 18BC88 was a round structure of the "updraft" type. In updraft kilns, heat rose through pottery stacked in the firing chamber, and exited through one or more openings in the kiln roof. Loading the pottery in the kiln was an art in itself, because vessels of various shapes and sizes had to be placed in order to waste as little space as possible, and to avoid having vessels stick to one another or to the kiln furniture.

The technology employed by Pawley's stoneware pottery in the Camden Yards area had a long history. The American domestic salt-glazed stoneware pottery tradition first was brought to this country from Europe, primarily England and Germany, where it had developed as early as the fifteenth century. Traditional stoneware potters fired their kilns from once a week to once a month. Wares usually were thrown on a potter's wheel, and were produced in standard gallon measures. Raw clay was prepared for the potter by an apprentice, who measured the clay in standard amounts. For example, a five pound ball of clay would result in a one gallon jug or crock, worth

five to 25 cents. An experienced potter could produce an average of 100 one gallon-capacity containers each day.

After the vessels had been fashioned, various techniques were used to apply decorative motifs. Vessel interiors often were coated with Albany slip, which produced a dark brown gloss. Exterior decoration often was applied utilizing cobalt blue slops applied with a brush or with a slop cup, a small cup with a protruding straw used to trace decorative elements. Different potters and potteries employed distinctive decorative motifs or methods of decoration. In addition, the gallon capacity of crocks and jugs frequently was stamped or painted on the vessel, and the name of the potter or company sometimes was applied to the body of the vessel. Once formed and decorated, the vessels were ready for firing in the kiln.

The kiln was heated by a wood fire. The firing process began slowly at about 600° C to drive off excess water held in the clay. The heat was increased gradually to the "blast-off" period, during which the fire was stoked constantly to provide more intense heat. Salt-glazing usually occurred in several stages. The salt-glazing process involved pouring salt into holes in the top of the kiln called saltports, or throwing salt into the firebox. The intense heat of the kiln immediately vaporized the salt, which coated the ceramic pieces and sealed them with a glossy, clear glaze with the texture of an orange peel. After salting had been completed, the fire no longer was stoked, and all openings in the kiln were sealed. Two to six days later, the kiln usually had cooled enough to be opened.

Archival evidence indicated that a variety of other features or structures were associated with the stoneware production process. For example, Swann's nineteenth century stoneware manufactory in Alexandria, Virginia (1815-1820), included a potting house with four potters' wheels, a warehouse, and a millhouse where clay and glazes were readied for use.

Previous Investigations

Excavation near the corner of Russell and Cross Streets revealed a circular stoneware kiln foundation, 3 m (9.84 ft) in diameter (Figure 3). Archeological deposits in the kiln mouth, firebox,

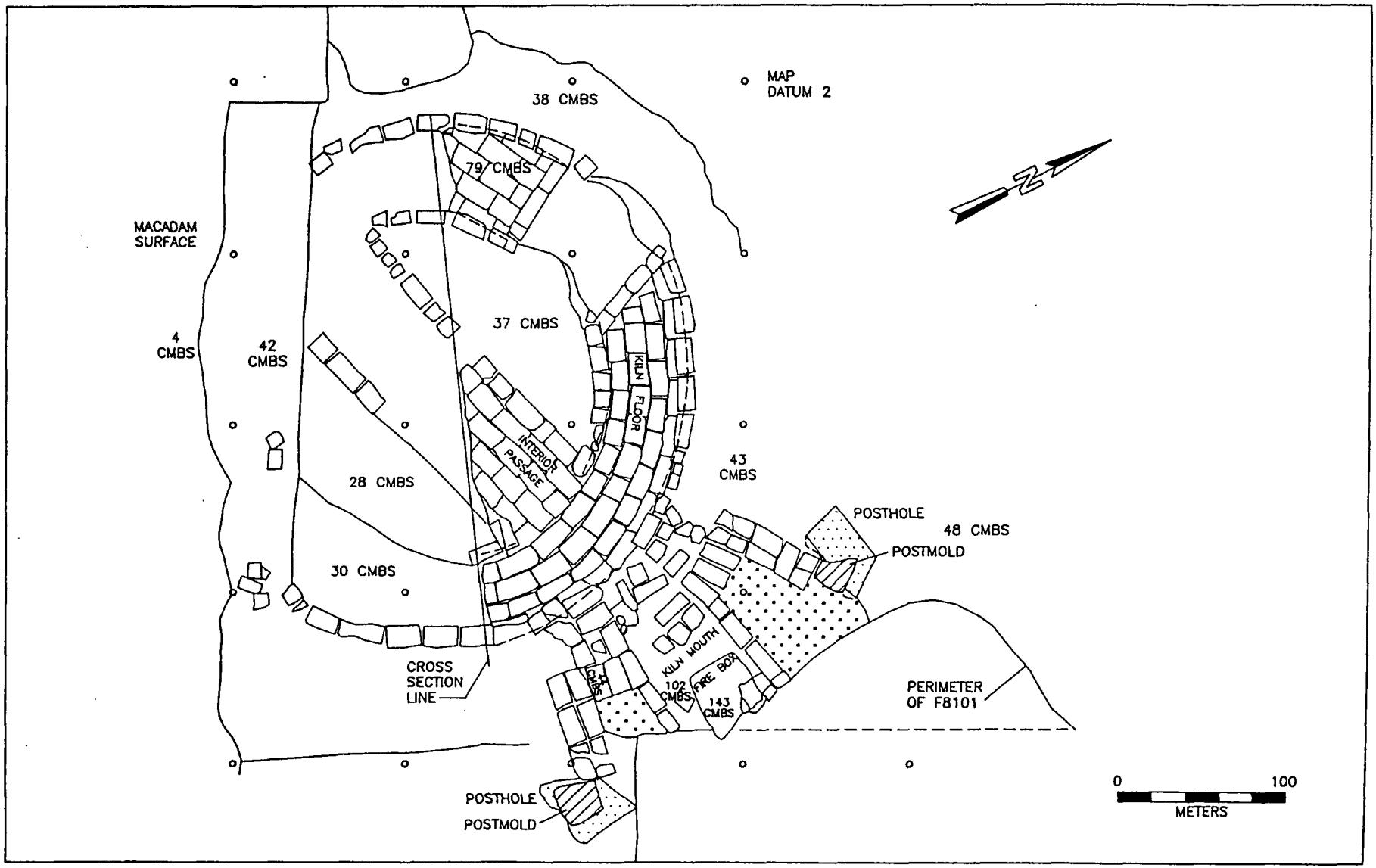


Figure 3. Plan drawing from 1990 excavations, showing the base of the Pawley Kiln structure

and within the interior of the kiln included large quantities of kiln furniture, wasters (primarily stoneware), brick, and charcoal that overlay the brick floor of the kiln. On each side of the kiln mouth was a square post hole and mold. The post holes contained brick fragments. The post mold, which represented the position of the decayed or extracted post, was filled with kiln furniture. These posts may have supported a roof, to provide shelter near the mouth for loading, unloading, and cooling vessels.

The kiln contained such vast quantities of debris that only a sample of kiln furniture was retained. Kiln furniture refers to the containers, separators, and other objects used by the potter to support, separate, and protect the vessels while they are being fired in the kiln. Many of these items, such as saggers, rings and discs were premade and reused, while others, such as props and separators, were made from available materials as necessary, usually as the kiln was being loaded. The sample contained 8,664 pieces of kiln furniture, including saggers, rings, discs, props, and other types of separators.

No archeological evidence of any of additional, related structures or features was encountered during previous investigations. However, small portions of the lot, north and south of the kiln were not examined due to the presence of landscape features such as fences, sidewalks, and the concrete access road for the Parks Sausage building.

Significance Statements and Research Questions

The Pawley stoneware kiln is significant locally because it represents the growth and development of industry in Camden Yards during the nineteenth century, the principal era of rapid industrial and commercial growth. The stoneware kiln is representative of the type of independent enterprise that flourished in the vicinity after the establishment of rail lines and Camden Station.

The Pawley stoneware kiln site yielded evidence of the technology and the products of a previously unidentified early Baltimore stoneware potter. This pottery kiln and its artifacts represent the non-mechanized individual operation characteristic of the earliest industrial enterprises in the Camden Yards area; the kiln was anachronistic, because it was in operation during a period when

Baltimore's potting industry was becoming mechanized. The various motifs on the pieces produced at the kiln and the quality of the wares illustrate the level of technical skill and the artistic sensitivity of this craftsman. Because a reasonably tight date range (1838-1858) has been established for this particular pottery operation, samples of previously unidentified stoneware with identical motifs recovered from other sites in the region now can serve as temporal markers for those sites.

The stoneware kiln has a larger significance because the decorative motifs used by the potter on the products of the kiln, having been dated and documented, will be universally identifiable. These dated motifs can be used as chronological markers, and products of this potter can be used to establish historically important regional trade and mercantile networks. Information from the kiln site not only adds to the database for manufacturing materials and techniques, but also to the scope of analytical and interpretive studies.

A series of specific research questions were posited in the original mitigation plan. Although subsequent investigations revealed that two of the proposed questions could not be answered sufficiently based on current archival and contextual data, the relevance of each of the original questions is reviewed briefly below.

What specific information about the process of stoneware manufacture can be learned from investigations related to the kiln?

It was expected that additional archival and comparative information could be gathered that would provide a city-wide and regional context for small-scale, non-mechanized stoneware manufacturing in the first half of the nineteenth century. Comparative research was intended to focus on differences and similarities between the technological process employed at the Pawley kiln and other similar operations for which documentation was available. Proposed archival resources included pamphlets and advertisements, census and tax records. As expected, the archeological data from the kiln site provide real information to which archival and documentary accounts of stoneware manufacture could have been compared. These comparisons were to provide information concerning size, layout, and construction techniques for the building and use of the kiln.

Subsequent research revealed that, although some comparative archeological data was available through the Baltimore Center for Urban Archaeology, no complete or thorough studies for other small-scale stoneware pottery operations in Baltimore were readily available. Some collections exist, but no systematic evaluation or study of those collections has been completed. Therefore, without extensive research and evaluation, which were beyond the intended scope of this project, comparative information on the products and manufacturing techniques of contemporary stoneware potters was not available. As a result, comparative information for manufacturing technique and products was used from other regional potters for the same time frame. These included the Wilkes Street operation in Alexandria, Virginia; and the Shenandoah Pottery in Strasburg, Va.

> *What are the connections between the stoneware kiln and the Pawley retail operations? Were the wares produced at the kiln intended for local markets? Were the wares produced at this kiln sold in his stores, sold to a middleman, or sold at other retail establishments? What can be learned about the local stoneware market?*

Baltimore City directories of this period listed James W. Pawley in various ways: as the proprietor of a "China, glass, and Queensware" store; proprietor of a "China" store; and, as a "Crockery" merchant. Pawley's retail outlets were located on Calvert Street, and his residence was on Lombard Street, north of the kiln site. Given this information, it is unlikely that Pawley operated the kiln at 18BC88. Rather, Pawley probably either built or bought the kiln, and employed a potter to supply products for his retail store. It was expected that further research would provide more detailed information concerning the extent of Mr. Pawley's operations, and the markets for the products of the kiln. Archival sources were to include tax and census records, as well as City directories. Subsequent research failed to produce much new information concerning Mr. Pawley's business interests. He apparently did not advertise, and there are few detailed records of his business dealings.

> *How do the specific vessel forms and decorations manufactured at this kiln compare to vessels manufactured by other Baltimore stoneware potters?*

Historically, potters specialized in certain types, sizes, and shapes of vessels; the products of individual potters or kilns can be identified by their size, shape, and decorative motif. When stoneware vessels are found in archeological contexts, these distinct shapes and decorations can be traced to the potter or kiln. Vessel fragments from the Pawley kiln were analyzed to develop a record of the form and decoration preferred by the potters. Additional analysis was designed to augment and verify earlier findings, through more detailed examination and analysis of the wasters present in the kiln base, and related features. Unfortunately, no collections from other Baltimore potters have been analyzed systematically, and no comparative data was readily available without extensive research and analysis. Again, comparative analysis resorted to information available for regional potters operating during the same time frame.

> *How do the forms being produced by individual potters compare to forms and styles being produced by increasingly mechanized pottery manufactories? How do forms and styles produced at this later period of handcrafted wares compare with earlier forms?*

In previous investigation, eight distinct vessel types were identified at the Pawley Kiln. These included milk and dairy pans; bulbous storage jars with lug handles; large storage crocks with knobbed lids; collared pitchers with strap handles; chamber pots; and, at least three types of bottles. Vessel forms also included several sizes and types of saggers, and a press molded pipe bowl. The size range represented by the sagger fragments reflected the variety of wares that were fired in the kiln. Analysis of waster fragments indicated that the potter at the Pawley kiln was producing wheel-thrown vessels. With the exception of one molded tobacco pipe bowl, none of his products appeared to have been molded. A comparison of the collections obtained from the Pawley Stoneware kiln with the range of items being produced at more mechanized potteries as well as from collections from earlier periods, may shed light on the pattern of change in production, form and decoration resulting from technological change.

Archival Research Methods

Preliminary background research was conducted to provide basic documentation of land use changes and of the complex historical development of the neighborhood. Additional information pertaining to specific research questions was researched using insurance records and maps, atlases, tax maps, property records, and City directories housed in repositories throughout the Baltimore-Washington Metropolitan area. Major repositories included the Baltimore City Archives, the Library of Congress, and the Maryland Historical Trust. Additional primary and secondary documentation was researched at other repositories, including: the Maryland Hall of Records, the National Archives, the Baltimore Museum of Industry, the Maryland Historical Society, and the Baltimore Center for Urban Archeology.

Archeological Field Investigations

Field investigations consisted of completing the excavation of the kiln base, and examination of adjacent areas for evidence of related structures and features. The clean fill above the feature was removed through hand excavation to expose the entire kiln. Materials in the overlying historic fill were sampled. Once exposed and cleaned, the feature was photographed and mapped, and feature plan views and cross-sections were drawn (Figure 4).

The remaining half of the ca. 3 m diameter kiln was hand excavated using a series of three 2 x 2 m blocks. The interior of the kiln contained little soil; the fill was composed primarily of broken stoneware kiln furniture and vessel wasters. Feature fill was removed in two levels, and screened separately through 0.25 in (0.635 cm) hardware cloth. Artifacts collected from each level were bagged separately. Munsell (1994 revised) *Soil Color Chart* and standard soil nomenclature were used to describe the feature matrix and surrounding soils; pedological attributes included color and texture.

A typology of kiln furniture was developed based on earlier investigations; kiln furniture was sorted according to that typology and counted in the field; only a 0.5 percent sample of previously

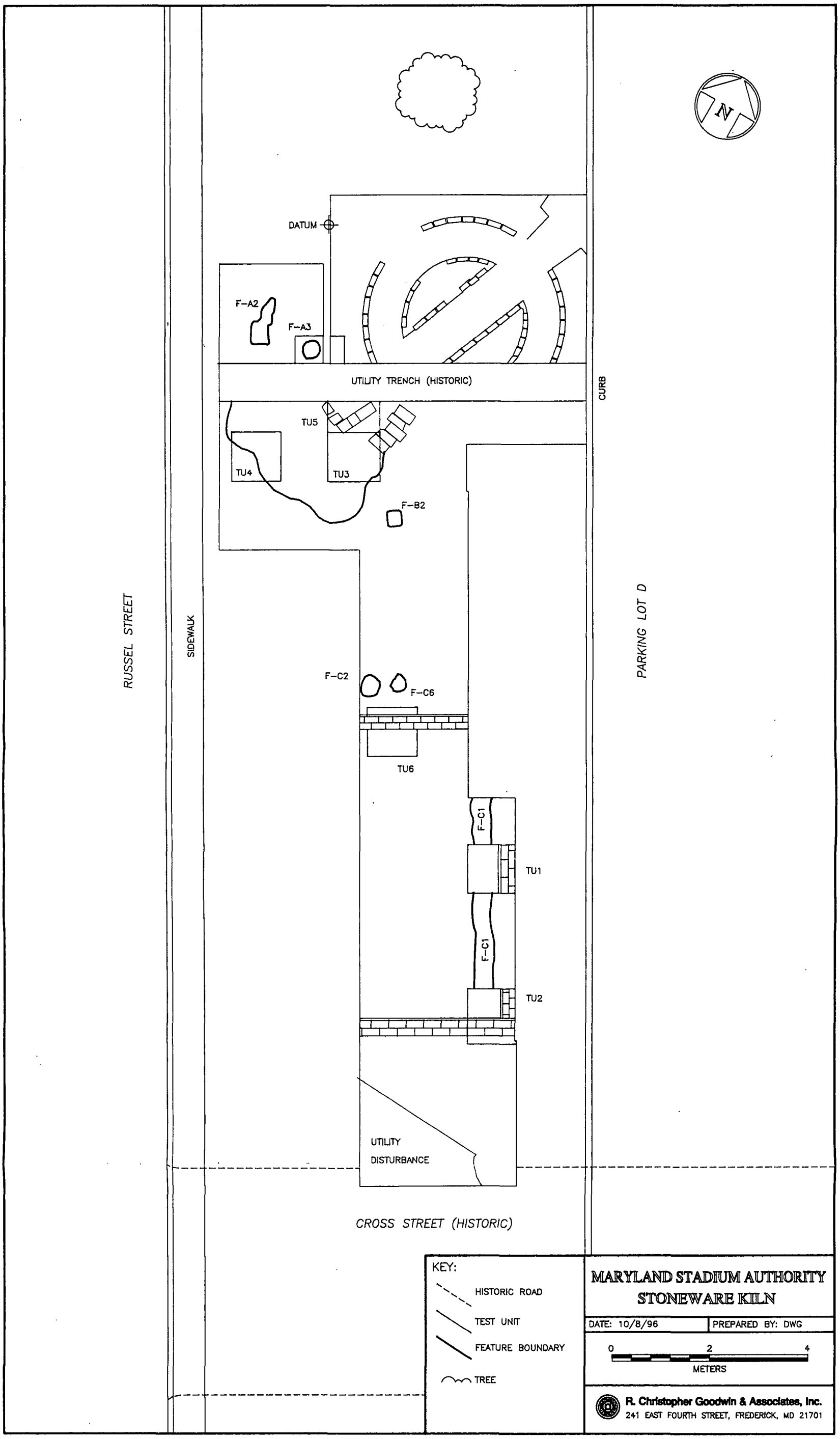


Figure 4. Current plan drawing of the Pawley Kiln Site (18BC88)

documented types was retained. A 10 percent sample of new forms was retained for analysis and addition to the typology. All vessel fragments or wasters were retained for analysis.

In addition, the 10 x 20 m areas immediately north and south of the kiln, between Russell Street and the parking lot, were examined for features or deposits related to the kiln (Figure 4). The 1823 Sanborn Fire Insurance maps indicated the presence of two small buildings within this portion of the block. These are the only structures shown in the vicinity of the kiln, and potentially were related to its operation. This portion of the site area was not subjected to testing during initial investigations due to the presence of paved lots and fences, and other landscape features, along with some evidence of prior disturbance. To test this portion of the area, a series of 3 x 3 m areas were mechanically cleared of filling materials to expose the original ground surface at the level of the kiln. This surface was cleaned and examined for evidence of features or deposits related to the kiln operations. A 0.5 per cent sample of materials from the overlying fill episodes was retained for laboratory analysis. No soil samples were retained from filling episodes. Additional potentially intact or significant features were present, and a strategy for testing and sampling those resources was developed in consultation with the Maryland Historical Trust and the Maryland Stadium Authority. This strategy was composed of hand excavation and recordation of a portion of each feature, following standard excavation procedures.

Laboratory Analysis

The following section outlines the methods employed to inventory and analyze the various classes of archeological remains encountered during data recovery. All artifacts were cleaned and rinsed, as necessary. All artifactual data and field records were inventoried utilizing a dBase III+ or Microsoft Access computer program. Each entry included the material class, artifact type, functional category (South 1977), and site and provenience designations.

Three classes of materials were retained from the kiln site. The first was a sample of the materials used to construct the kiln itself. Since there were no extant wooden or metal components of this structure, this sample was composed solely of fragments of the bricks used for construction.

Stoneware vessels and kiln furniture comprised the second major class of cultural materials from the site. Kiln furniture was sorted and counted on site, and a sample was retained. Samples of previously undocumented forms were retained. All vessel wasters were retained, and analyzed on several levels to acquire as much information as possible concerning materials, manufacture, form, function, and decoration.

Analysis focused on determination of the form of vessels represented by the wasters. The previous catalogue of vessel forms from the site was used as a basis for further development of a typology for the site, and the accuracy of the previous analysis was checked. In general, analysis of the form and function of ceramic vessels is important, because vessel types reflect behavioral patterns, status, and dietary practices. In this instance, the form and function of the products of the kiln reflect the influence of demand on the market in which the potter was participating. This small, local operation may have been producing vessels designed to fill a local demand for inexpensive storage or utility vessels, intended to augment the more expensive imported wares handled by Mr. Pawley's other operations. A statistical comparison of these vessel categories was undertaken. An examination of vessel frequency patterns can be used to aid in interpretation of the markets for these products.

Vessel decoration also was analyzed, in conjunction with data on decorative motifs from previous study of the materials from the site. Further investigation into this aspect of the materials aided in developing an understanding of the distribution of products from the kiln, by clarifying the range of decorations and motifs the potter used on various vessel forms. Statistical analysis also was used to look for correlations between vessel form or function and decorative motif, to determine whether certain types of decorative motifs were applied to specific vessel forms or types.

The third class of materials from the kiln site comprised non-industrial artifacts that reflect either earlier, contemporary, or later domestic occupation of the site. These materials were analyzed using broad functional classifications based on South (1977), and ware and form identifications and descriptions presented by Noel Hume (1970), Worthy (1982), Jones and Sullivan (1985), Miller (1980), and others. The largest group of materials were architectural objects related

to the construction or maintenance of domestic structures. This group included brick, mortar, window glass, and nails. Nails were the majority of datable objects from this class. Nail classification was based on manufacturing methods. These were categorized either as hand wrought, cut, or wire (Hume 1985). Cut and machine cut nails replaced handwrought nails in the late eighteenth and early nineteenth centuries, and the manufacture of wire nails gained popularity after 1890.

Kitchen artifacts comprised the majority of the remainder of non-industrial artifacts. This functional group includes any objects related to the preparation, service, consumption, or storage of food. The kitchen group includes ceramic, glass, and biological materials. Biological materials at the kiln site included largely mammal bone, and oyster shell, both refuse from food preparation. Although these materials sometimes are analyzed for information concerning diet and socioeconomic status, the stratigraphic context (fill) of this class of materials throughout most of the site area precluded drawing any definite or useful conclusions concerning this class of materials.

Ceramic and glass fragments made up the remainder of the kitchen group. These included a variety of ceramic types that were manufactured throughout the eighteenth, nineteenth, and early twentieth centuries. Domestic gray stoneware accounted for a large portion of the total collection, although only a small percentage of the sub-assemblage related to the post-kiln occupation of the parcel. These wares, first produced in North America in the late eighteenth century, are hard-bodied gray to brown wares, with a vitrified body. Commonly these vessels are treated with lead, alkaline, or salt glazes; some are slipped and glazed. With the development of more refined white-bodied wares, stoneware increasingly was used for utilitarian storage and food preparation.

After domestic gray stoneware, creamware, pearlware, and whiteware were the most common. These types represent a gradual refinement of the production processes for white bodied wares that was aimed at producing a white-bodied ware with a clear glaze. The popularity of creamware dates from approximately 1760 to 1820. This ware, produced in Staffordshire was the English potters' attempt to access the market developed for white-bodied Chinese export porcelains.

This ware was produced using a copper alloy to clarify the glaze, that resulted in a yellowish to off-white body with a greenish cast to the glaze where it pooled on the body of the artifact. This was followed in the 1780s by the development of pearlware, using a white body and a glaze clarified using cobalt. This resulted in a whiter-looking body with bluish tint to the glaze where it pooled. The final step of this development was the introduction of whiteware in ca. 1820, this white-bodied ware had a clear, lead-based glaze. The transition from creamware to pearlware and to whiteware was gradual, with many variations in glaze color. All of these ware types were decorated, using a variety of methods, including hand painting, transfer printing, sponge decoration, annular banding (Figure 5). A wider variety of decorative techniques was used for pearlwares and whitewares than for creamwares. Blue and polychrome decoration was popular on both pearlware and whiteware, especially floral motifs before 1820 (Figure 6). Later, transfer printed landscapes in a variety of colors, in use since approximately 1783, became predominant. Transfer printed motifs included floral, landscape, and romantic or classical scenes (Figure 7). Edging was another popular decoration for plates, platters, and bowls. The two most common were feather and shell edging, usually in either blue or green (Figure 8).

Some examples of ironstone also were present. This ware type has been manufactured in England since approximately 1820, and also was introduced as an imitation of Chinese export porcelain. Availability in America dated from 1853, and production continued to approximately 1937. These wares typically were grey to bluish gray, and had a lead glaze (Figure 9). Many of these vessels were hand painted or transfer printed in Chinese or floral motifs, later decoration was mainly molded rim patterns.

Although some examples of mold blown glass were present, examples of glass from these late features were largely machine made bottle glass, dating after 1898. Mold blown glass was prevalent throughout the nineteenth century, made in one, two, or (later) three piece molds. Later molded bottles were produced using either post-bottom or cup-bottom molds. Machine made wide

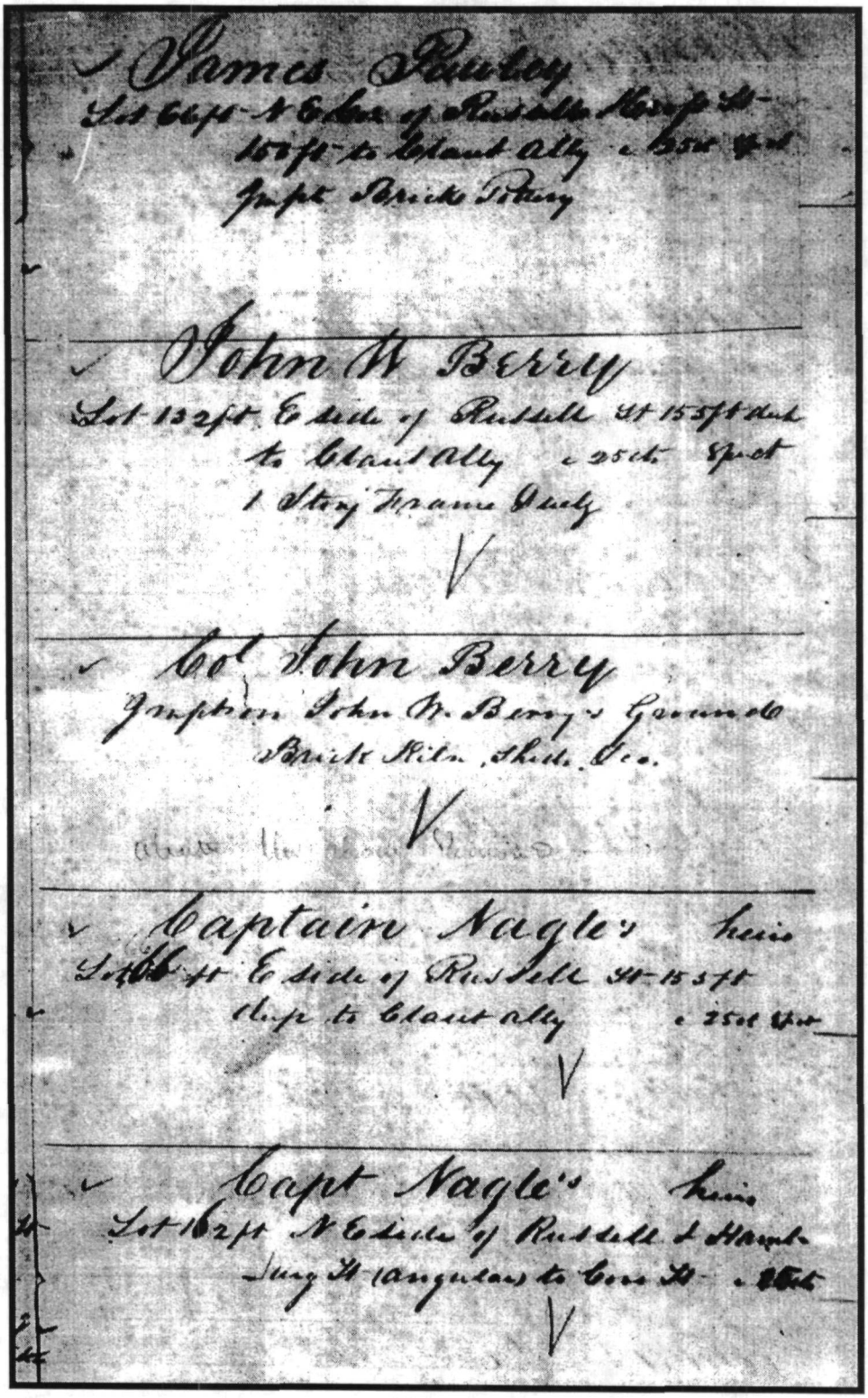


Figure 5. 1838 Tax Map showing the extent of the Berry Brick Company operations

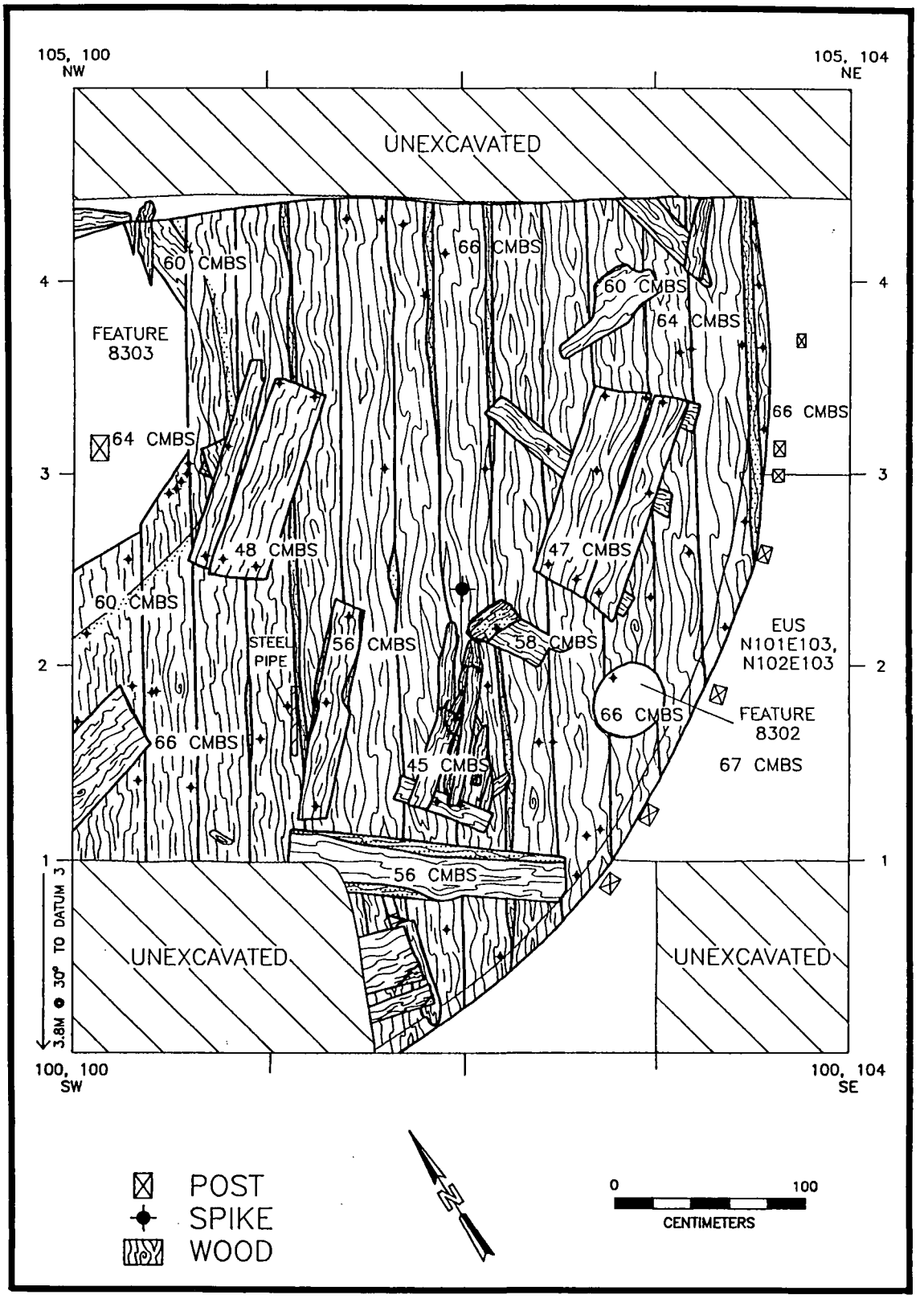


Figure 6. Plan drawing from previous excavations, showing the southeast quadrant of the wooden structure

Figure 7. Photograph of examples of annular decorated pearlware, from the 1845 Warner privy (18BC79) near the Pawley Kiln site. (Kuranda et al. 1992)

Figure 8. Photograph of examples of hand painted pearlware, from the 1845 Warner privy (18BC79) near the Pawley Kiln site. (Kuranda et al. 1992)

Figure 9. Photograph of examples of transfer printed pearlware, from the 1845 Warner privy (18BC79) near the Pawley Kiln site. (Kuranda et al. 1992)

mouth fruit jars were available after 1880, as were milk bottles, the remainder of machine made forms did not become widely popular until after the turn of the century (Jones and Sullivan 1989:38).

The J.S. Berry Brick Mill (18BC89)

Introduction

The J.S. Berry Brick Company (18BC89) was located within Baltimore's City Block 925. This section of Baltimore originally was part of a land grant known as Howard's Timber Neck, annexed to the city in 1783 (Presbury 1783). Both Presbury's map and Henry Hart's 1792 "Map of Part of Ridgeley's Delight and Howard's Timber Neck" indicated that property lines and streets had been laid out in this area by the end of the eighteenth century. Hart's survey also showed that at least two dwellings occupied lots within the eastern and western halves of Block 925 by the end of the eighteenth century. Warner and Hanna's 1801 Map of the City of Baltimore only dealt peripherally with the area lying south and west of Fremont Street.

During the first half of the nineteenth century, ownership of property in this area appears to have been speculative; very few lots were developed or improved. Sidney and Neff's 1851 city map depicted only three structures within Block 925, including one at the location of the potter's kiln. By 1858, John and George Berry had acquired all of Block 925, except for the Pawley lot (Tax Assessors Record 1858-1859:491). By the 1870s, the Berry brickmaking enterprise dominated the block; tax assessment maps for 1876 show that the brickworks occupied the entire section east of Claret Alley, and that John, George, and William Berry controlled approximately two-thirds of the block west of Claret Alley (Figure 10). However, the lots on Russell Street were identified as "unimproved" (Tax Assessors Record 1876:265, 1655), indicating that the 1838 brick kiln had been removed. Fire insurance maps show that new bricksheds later were constructed on these lots (Sanborn 1890).

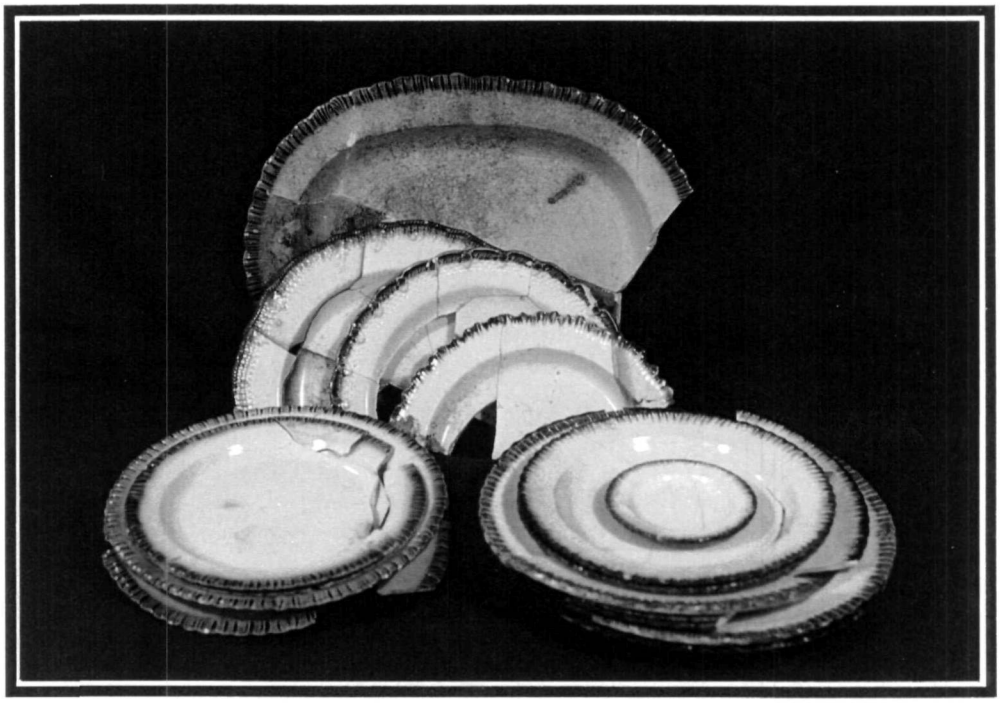


Figure 10. Photograph of examples of shell edged pearlware, from the 1845 Warner privy (18BC79) near the Pawley Kiln site. (Kuranda et al. 1992)

Archival Data

Due to its proximity to the Patapsco River and to the Chesapeake Bay, the Camden Yards area historically contained large deposits of marine and alluvial clays. These readily available clay deposits rendered the area a prime location for brickmaking enterprises. Brickmaking was a major industry in Baltimore from the eighteenth through twentieth centuries; brickmaking families such as the Albrights, Berrys, Krebs, Nagles, Russells, and Warners originally controlled much of the real estate in the vicinity.

Five principal stages were involved in the brick-making process: mining (known as "Winning"); the preparation of the clays; molding (known as "Forming"); drying; and firing (known as "Burning"). After the clay was mined from pits, it first was weathered by being permitted to lie exposed during the winter; this -process removed soluble salts from the clay, and broke down the harder lumps in the matrix. Next, the clay was tempered to make it pliable and to give it an even consistency; various materials such as sand, grog, ash, or ground chalk could be added during this phase to reduce shrinkage of the final product. The tempering process was followed by molding; until the late nineteenth century, molding was done by hand in wooden or iron clad molds, and the process required skilled workers. The molded bricks then were dried, and, finally, fired in a kiln. An understanding of this technology permits an accurate interpretation of archeological and archival data relating to this site.

According to the J.S. Berry Brick Company's own promotional literature, the Berry family's involvement in Baltimore's brick making industry dated to ca. 1812. An early nineteenth century directory listing showed a J. and T.L. Berry, "fireproof brick man," located on South Sharp Street, near Hill Street, within the present Sharp-Leadenhall district. Although tax records indicated that John W. Berry operated a brick kiln at Russell and Hamburg Streets as early as 1838, the family's major brickmaking operation probably moved to this location during the late 1850s.

The 1890 Sanborn-Perris Fire Insurance Map of the Berry Brick Works shows that the complex included several unidentified single-story frame structures; two or three kilns, both wood and coal-fired; a brick oven; several single story brick sheds; a tool house; brick floors; and four

clay pits. Both horse-powered and steam-powered pug mills were used to temper the clays. Because the company manufactured fire brick, special care had to be taken to ensure that the final size and shape of the brick was uniform. Usually, ground brick known as grog was added to clays intended for fire brick to reduce shrinkage during drying; high quality fire brick also frequently used more than one type of clay.

The company utilized several drying processes for its bricks; Sanborn's map showed two single-story drying sheds on the Berry property between Claret Alley and Russell Street, as well as two "brick floors" adjacent to the main kilns. Drying sheds had hinged roofs and open sides to allow maximum air circulation in good weather; using this process bricks could be dry enough for firing within two to three weeks. Brick "floors" were heated areas on which green bricks were stacked to speed up the drying process; heat was delivered to the floor by means of flues from the nearby kilns.

Previous Investigations

Excavations near the intersection of Russell and Hamburg Streets exposed the remains of one of the Berry horse-powered pug mills. This was a large, circular wooden structure that represented the platform of the clay mixing vats (Figure 11). Subsequent construction and demolition events had little impact on the wooden structure. One-quarter of the feature was documented, it and the remaining three-quarters were left undisturbed, and preserved in place for later investigation.

Although remnants of the associated steam powered mills located south of the horse-powered mill were identified and recorded at that time, these features retained no integrity, and their industrial, early twentieth century manufacturing context had been compromised by later construction and landscape modifications. No evidence was found of the steam powered mill shown on Sanborn fire insurance maps to the east of the wooden mill. The remnants of the two southernmost features were recorded during the initial investigations. As a result, the current

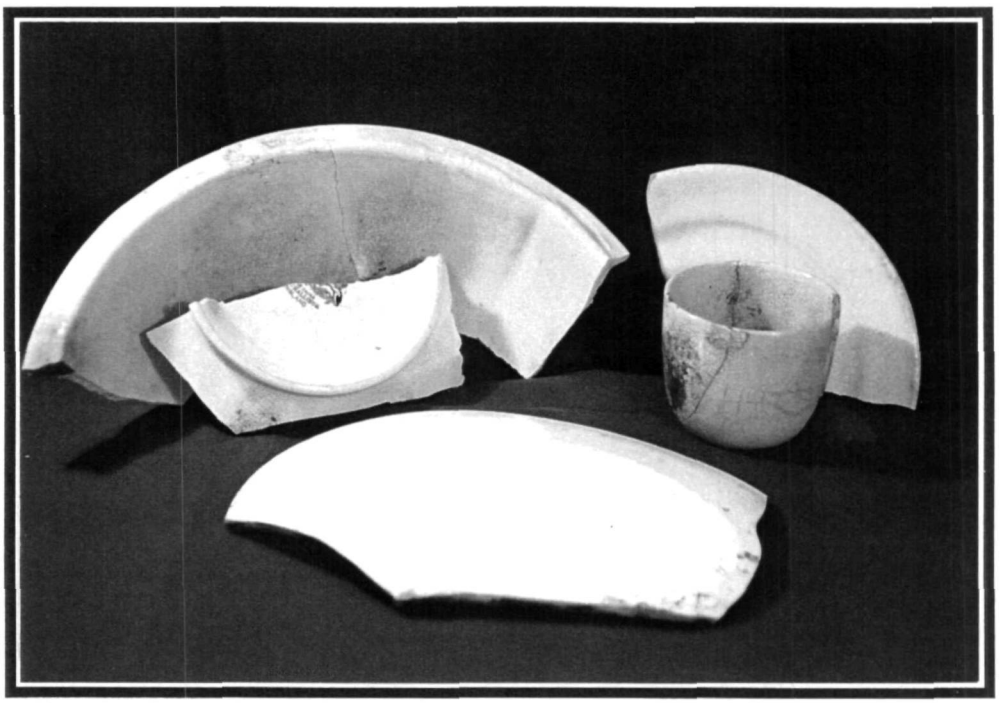


Figure 11. Photograph of examples of ironstone, from the 1845 Warner privy (18BC79) near the Pawley Kiln site. (Kuranda et al. 1992)

mitigative efforts focused on the remaining wooden mill structure, with additional verification of the absence of associated features.

Significance Statement and Research Questions

The pug mill is significant locally because it represents the growth and development of industry in the Camden Yards project area during the nineteenth century, the principal era of rapid industrial and commercial growth. The J.S. Berry brick works was a significant operation, and the mill represents a portion of a larger manufacturing facility, whereas the nearby Pawley stoneware kiln is representative of the type of independent enterprise that flourished after the establishment of rail lines and Camden Station. Four mills, two horse-powered and two steam-powered, were documented on Sanborn Fire Insurance maps. These features represent a technological watershed for the brick-making industry, because they document the change from manual to mechanized production in this basic industry. A series of specific research questions were posited and are reviewed below. The relevance of each question to the data recovery are reviewed briefly.

> *What specific information can this feature provide about the technology of brick making industry, in a portion of the process that is not well documented?*

Gurcke, in his book *Bricks and Brickmaking* (1978) has explained the operation of a pug mill (also known as a mud mill) as follows:

> Early pug mills usually took the form of a wooden tub through which ran a vertical shaft of wood. To this shaft was attached a series of blades 'extending from the shaft in four directions, but so placed that one does not follow directly under the other. To trace the knives around the shaft would be like following the thread of a screw.' Clay and additives were dropped into the top of the container that also held the shaft. As the clay made its way down, it was thoroughly mixed by the rotating blades until it was ready to be removed at the bottom (Gurcke 1978:10)

With a diameter of approximately 6.4 m (21.0) ft, and with portions of its tub intact, the J.S. Berry Brick Company pug mill represents a primary example of how American brickmakers adapted earlier technologies to meet the demands of a mass economy.

In the summary of his work, Gurcke notes that archeological research on brickmaking technology has been confined almost exclusively to the excavation of brick clamps and kilns, or to

the analysis of the molding techniques utilized to form the bricks. No archeological research concerning the other technological aspects of the brick industry has been presented. The J.S. Berry Brick Company pug mill certainly is the first such feature to be uncovered in the City of Baltimore; it possibly is the first feature of its kind to be examined archeologically within the continental United States.

What information does the feature provide concerning the construction of the mill itself? What types of materials were used for its construction, and were the specifications to which it was built standardized either locally or regionally within the brickmaking industry?

Several brick manufacturing companies operated within the greater Baltimore area, and in the immediate vicinity of the Berry works, due to the presence of multiple clay pits. A combination of archeological and archival investigation provided some information concerning this question. The measurements and specifics of construction and materials for the Berry brick mill were compared with data available concerning the construction specifications and materials from nearby brick manufactories. Due to the fact that no previous archeological examples have been recorded, the comparative data was taken from archival sources that will include census data, tax records, manufacturer census data. Repositories consulted included the Baltimore Center for Urban Archaeology, the Baltimore Museum of Industry, the Baltimore City Archives, and the Maryland Hall of Records.

We know from archival evidence that this manufacture specialized in fire proof bricks. Can we find evidence of this specialization and how is it manifest?

Archival research indicated that the J.S. Berry Brick Company manufactured specialized fire bricks, used for lining flues and chambers of furnaces and smelters, as well as tiles for lining commercial bake ovens. The company's products, stamped "Berry's PREMIUM Fire Proof," were marketed to iron furnaces, foundries, gas light companies, and glass works in the Baltimore-Washington metropolitan area. Excavation of the pug mill included analysis of evidence of materials and construction to provide information concerning early adaptations of technology to this specialization. However, very little remained outside of the mill itself, which provided some technical

information concerning its construction, and operation, but little about the materials processed in it.

What information can this feature provide that will increase our understanding about the Baltimore brickmaking industry of the early 19th century?

The J.S. Berry Brick company was a moderately large establishment that employed no more than 25 laborers in 1880; 60 per cent of its work force was under the age of 16. Skilled workers at the brickyard were paid $1.75 per day, and unskilled workers netted $1.12 as a daily wage. A 10 hour day was the norm. During 1880, when the operation was idle for eight months out of 12, the company produced 2,000,000 fire bricks and $500.00 worth of bake oven tile.

In contrast, the largest brick-making firm in Baltimore, Riers, Russell, and Company, maintained a work force of 265, all of whom were over 16. The Riers/Russell firm produced brick during seven months of 1880, and its total output was valued at $102,000.00 (U.S. census of Manufacture 1880:6-8). A check of available archival information did not provide substantial additional insights concerning the industry in Baltimore, and the place of the Pug mill within it. The Berry operation no longer is in business, and its records were not available for study.

What information can we provide about the markets and trade of the products? Was production aimed at a local market? Are the products being exported?

The J.S. Berry brick manufacturing plant was small compared to some of the other brick making operations in Baltimore. Archival research has indicated that the company specialized in fire proof bricks, with the principal competition from English Stourbridge bricks. This raises questions about how widespread geographically their bricks were marketed. Archival information provided additional data concerning the industry in Baltimore, and the place of the Pug mill within it. Sources for this information included the Baltimore City Archives, the Maryland Hall of Records, the Baltimore Museum of Industry, the Baltimore Center for Urban Archaeology, the Maryland Historical Society, and the Maryland Historical Trust.

Archival Research Methods

Preliminary background research was conducted to provide basic documentation of land use changes and of the complex historical development of the area. Sources consulted during those investigations included historic maps, including the entire sequence of Sanborn Fire Insurance maps, as well as maps of Baltimore and its environs. Census and tax records for the City of Baltimore were checked in an effort to develop a more precise understanding of the extent of the Berry Brick operations, and the time frame in which it operated. Searches of City Directories also were undertaken to develop a clearer understanding of the extent of the Berry operations, and the scale of the larger brickmaking industry in Baltimore.

Additional information pertaining to specific research questions was gathered using insurance records and maps, atlases, tax maps, property records, and city directories housed in repositories throughout the Baltimore-Washington Metropolitan area. Major repositories included the Baltimore City Archives, the Library of Congress, the Baltimore Museum of Industry, the Maryland Historical Society, the Maryland Hall of Records, and the Maryland Historical Trust, and the Baltimore Center for Urban Archaeology.

Information on aspects of Baltimore's brick making industry originally were obtained through review of city directories, tax records, and manufacturing census data at the Baltimore City Archives and the Maryland Hall of Records. Information also was obtained from reviewing vertical files on brickmaking and brick manufacturers at the Baltimore Museum of Industry. This research focused primarily on the time frame during which the Berry operations were located on Hamburg Street.

Additional research conducted for this phase of the investigations included a re-analysis of manufacturing census and property tax data for Baltimore; examination of patent records concerning the design and operation of clay-mixing apparatus during the early nineteenth century; and investigation of primary source works on Baltimore's nineteenth century industrial development. Research was conducted at the Baltimore City Archives, the Maryland Historical Society, and the United States Patent Office Library.

The results obtained from this extended research effort were disappointing in terms of the additional information they produced. In some cases, the data were found to be redundant; in others, data were unavailable. For example, although nineteenth century annual reports of the Patent Office indicated that patents for clay-mixing machinery had been issued as early as the 1830s, the drawings that accompanied these early patent applications apparently were destroyed during a fire. As a result, the earliest available patent drawing depicted a mechanized pug mill of the middle nineteenth century; such a mechanism would have been a more appropriate match for Berry's later steam-powered operations.

Mitigation Methods

To thoroughly document the pug mill, an area covering approximately 10 x 10 m, was cleared of overlying fill deposits, and hand excavated to expose the wooden structure. This provided a 100 percent exposure of the wooden superstructure of the pug mill. The overlying fill materials were removed mechanically in 30 cm levels to expose the entire feature. Fill materials and clays associated directly with the feature were removed manually.

Once exposed, the wooden mill structure was cleaned and documented through scaled drawing and large-format photography. The wooden structure was examined closely for evidence of construction techniques; any visible evidence was documented graphically and photographically. Wood samples were retained for species identification. Soil samples were not retained because the majority of the soils currently associated with the feature are historic or recent filling materials, not primary deposits associated with the operations of the brick works. Upon completion of recordation, a portion of the wooden deck was removed and the soil matrix and underlying structural supports were examined and recorded.

No previously unidentified features or deposits were exposed. Although remnants of the associated steam powered mills located south of the horse-powered mill were identified and recorded during previous investigations (Kuranda et al. 1992); these features retained little integrity, and their industrial, early twentieth century manufacturing context had been compromised by later

construction and landscape modifications. No evidence was found at that time of the steam powered mill shown on Sanborn fire insurance maps to the west of the wooden mill. Current investigations verified intensive disturbance in the surrounding area. The remnants of the two southernmost features were recorded during the initial investigations. As a result, the current mitigative efforts focused on the archeological documentation of the remaining wooden mill structure.

Laboratory Analysis

The following section outlines the approaches that were taken to inventory and analyze the various classes of archeological remains encountered during data recovery. All materials were cleaned and rinsed, as necessary. All artifactual data and field records were inventoried utilizing a dBase III+ or Microsoft Access computer program. Each entry included the material class, artifact type, functional category (South 1977), and site and provenience designations. Due to the nature of the features, few materials were associated with the pug mill, beyond the actual wooden structure. Laboratory analysis was limited to an examination of the sample of materials retained from overlying fill. These materials were analyzed to provide a general characterization of the age and nature of filling materials. Wood samples from the feature itself were analyzed to determine species.

This mitigative effort produced few materials that will require conservation. There are no plans to retain the superstructure of the wooden mill. The remainder of the collection comprised ceramic and glass samples from the overlying filling episodes. These items do not require conservation beyond cleaning and appropriate packaging for storage.

Disposition of Records and Materials

All materials produced as a part of the Phase III data recovery will be prepared for curation in accord with the guidelines set forth by the Maryland Historical Trust. Upon completion of the

project, the artifacts and accompanying documentation will be turned over to the Maryland Historical Trust for permanent curation.

Public Involvement and Interpretation

Public interpretation of the findings of data recovery projects is a key portion of the mitigative process. Dissemination of this information can be achieved by public lectures, and through constructive use of the print and visual media at the discretion of the Maryland Stadium Authority, and with the guidance of the Maryland Historical Trust.

Due to the constraints of location, access, parking, and time, onsite public interpretation for this data recovery project was not feasible. However, the proposed public interpretation program for the Pawley kiln includes: (1) the preparation of news releases describing the project and its findings; (2) the presentation of scholarly articles in a professional journal; and (3) the presentation of research papers at regional or national professional meetings. Additional public interpretation may include posters, pamphlets or brochures made available at the ballpark, or displays at the ballpark of materials from these investigations.

CHAPTER III

GENERAL HISTORICAL CONTEXT

Cultural Sequence

Maryland's *Comprehensive Preservation Plan* (Weissman 1986) establishes a system of statewide historic contexts and themes to serve as a framework for organizing and evaluating the state's historic resources. Four chronological/developmental periods are applicable to the surrounding western Baltimore neighborhoods: Rural Agrarian Intensification (1680 - 1815); Agricultural-Industrial Transition (1815 - 1870); Industrial/Urban Dominance (1870 - 1930); and, the Modern Period (1930 - Present). The landscape architecture, economics (commerce), and social/educational/cultural themes also are relevant to local historic development. These periods and themes provide the infrastructure for the general historic context of the neighborhood against which the significance of the historic and archeological resources of the kiln and mill can be assessed.

Rural Agrarian Intensification (1680-1815)

The first patents for land around the Patapsco estuary were issued during the mid-seventeenth century, and Baltimore County was established officially in 1659. However, the present City of Baltimore did not develop until the early eighteenth century, when the rapidly growing population of the Upper Chesapeake region petitioned the Maryland Assembly to establish port and customs facilities in the area (Papenfuse et al. 1976:351). As a result, a 60 ac (24.28 ha) portion of Thomas Cole's patent of Cole's Harbour, encompassing all of the present downtown core of the city, was designated as the first Baltimore City. A second settlement, originally known as Jonestown, was established east of Baltimore Town in 1732; commonly referred to today as "Old Town," Jonestown was annexed to Baltimore in 1745 (Scharf 1881:56). During this period, land on the western perimeter of the city was occupied primarily by larger land grants.

During this early settlement period, Baltimore's geographic location dictated the development of the city's economy (Browne 1980:3). Although tobacco initially was the region's primary commodity, wheat, iron, and lumber from Western Maryland ultimately assured Baltimore's preeminence as the state's mercantile and manufacturing center. Baltimore became the focal point for Maryland's international commerce, and commodities exported through Baltimore were exchanged in the West Indies for sugar, rum, and slaves. Easy access to raw materials and control of their distribution represented the principal elements of Baltimore's early success.

Baltimore's position as a regional hub for domestic and international commerce attracted merchants, sea captains, and shipbuilders who located their homes and businesses along the city's waterfront. The Patapsco shoreline gradually was extended, wharves and piers were built to accommodate larger-draft ships, and numerous shipyards turned out mercantile vessels. Within only two decades, Baltimore Town had acquired a population of 200, as well as 25 dwellings, a church, two taverns, a pottery, and a distillery (Scharf 1881:7; Papenfuse et al. 1976:353). In 1768, Baltimore replaced Joppa Town as the seat of Baltimore County (Ruckert 1976:16).

During the American Revolution, Baltimore supplied cannon and munitions for the Continental armies and outfitted vessels for the Continental Navy. The resultant commercial and industrial boom attracted new city residents, and residential housing expanded to accommodate these new arrivals. Merchants, millers, and manufacturers became the city's social and economic aristocracy; in fact, one historian later observed that the town of Baltimore was "enriched with the spoils of war" (Scharf 1881:60).

Between July and August, 1782, the undeveloped agricultural lands and wooded areas north and west of the city were occupied by French forces commanded by the Comte de Rochambeau, who were returning north after assisting American forces at the Battle of Yorktown. The large French encampment extended diagonally from present-day South Charles and Montgomery streets to an area west of Lexington Market. Berthier's 1782 map shows Rochambeau's Third Division (Soissonnais Regiment) artillery, cavalry, and infantry across the area of Conway and South Paca

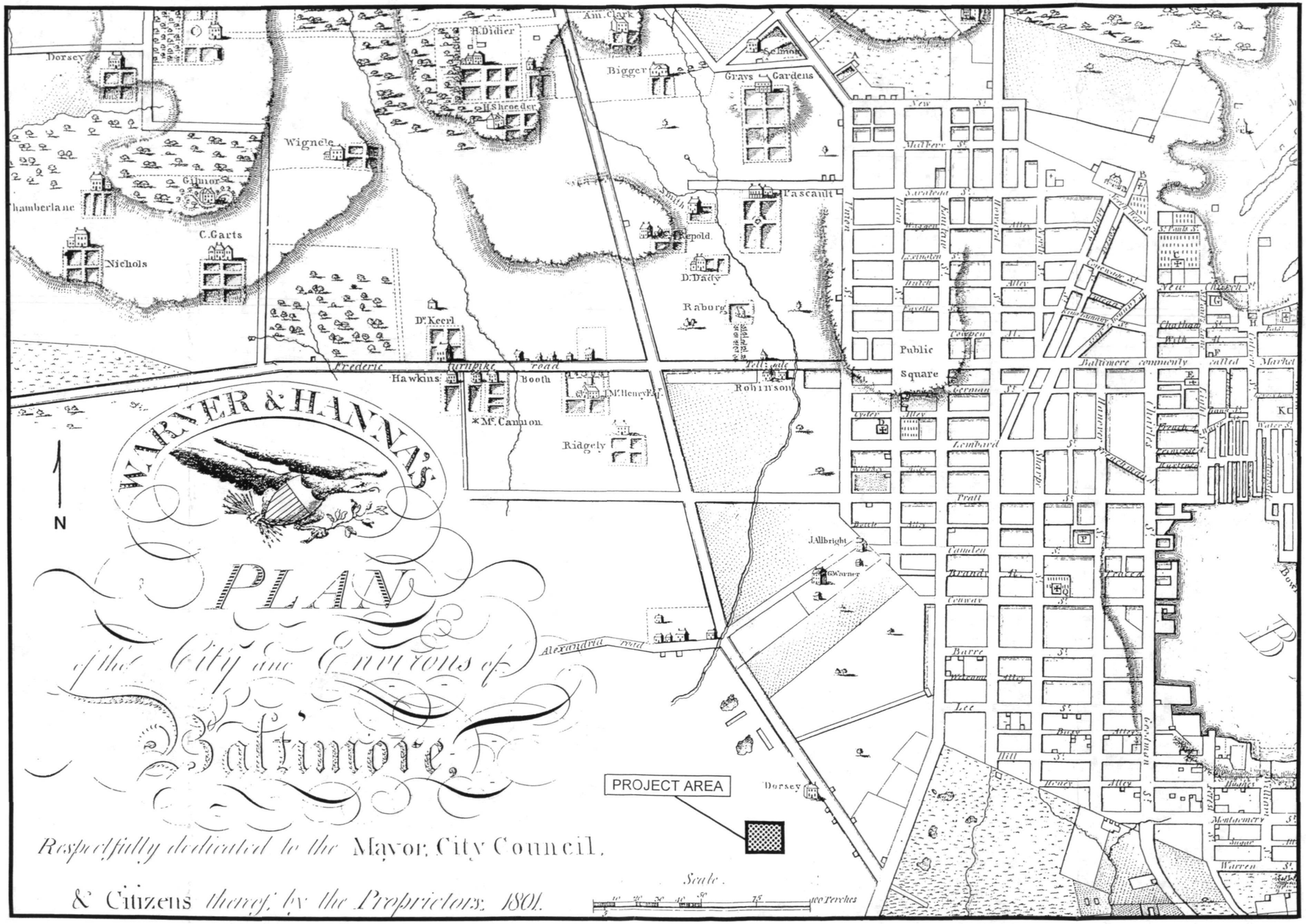
Streets, northeast of the location of the kiln and pug mill. These were elements of the Soissonnais Regiment, led by the Compte de Veirmeuil (Rice and Brown 1972:II, 153).

The economic activity generated by the Revolution and its aftermath continued to stimulate Baltimore's post-war growth. In 1798, the value of Baltimore's exports exceeded $121,000,000 (Ruckert 1976:25), and by 1799, the city had become the third largest commercial port in the United States (Hall 1912:63). In the process, Baltimore also became a multi-ethnic, multi-racial community, as German, Scottish, and Irish immigrants, exiled Acadians, and African-Americans, both slave and free, swelled the town's population (Goldfield 1991:131). The post-Revolutionary population surge not only put pressure on the stock of available dwellings, it also resulted in Baltimore's being accorded formal city status in 1792.

The end of the Revolution ushered in the first period of development within Baltimore's "Western Precincts." Large land grants, including portions of Charles Ridgely's property, were subdivided and sold, most likely in anticipation of their annexation by the City (Presbury 1782). Initial commercial development in the area began with the construction of John Eager Howard's large hostelry, the General Anthony Wayne Inn, at the northwestern corner of Baltimore and Paca streets. By 1805, the population of western Baltimore had increased sufficiently to warrant the formation of a volunteer fire brigade (Kelly 1982:19-20). Despite these development, much of the "Western Precincts" remained as a semi-rural suburb of the city at the onset of the nineteenth century. Warner and Hanna's 1801 *Plan of the City and Environs of Baltimore* (Figure 12) depicted only limited development west of the city's commercial center, and none within the project area.

Agricultural/Industrial Transition (1815 - 1870)

Between the War of 1812 and the end of the Civil War, industrial and commercial development became increasingly important components of Baltimore's economy. Previously all-residential sections near the city's waterfront were transformed into warehouse and industrial areas. Sugar refineries, fertilizer plants, and cotton textile factories provided products for export; shipyards were replaced by coalyards, lumberyards, and oyster and vegetable canneries. Baltimore's position



ONE INCH = 18,333 FEET

Figure 12. Excerpt from Warner and Hanna's 1801 *Map of the City of Baltimore and its Environs*, showing development in the vicinity of the Pawley and Berry sites

as a transportation center also propelled its nineteenth century economic development. The B&O RR, organized during the 1820s by a group of Baltimore investors, facilitated Baltimore's trade with producers in Western Maryland and the Ohio Valley, and stimulated its development into the most important commercial center in the southern Middle Atlantic region. As more land in the center of the city was appropriated by these industrial and commercial ventures, tracts of row houses expanded beyond the urban core to house the city's escalating population.

As opportunities for employment expanded and Baltimore's population grew, its racial and ethnic composition changed. Of particular importance was the influx of Irish and German immigrants that began to move into western Baltimore during the 1840s and 1850s. Earlier, more affluent residents in turn moved to newly developing residential districts on the outskirts of the city.

Nineteenth century German and Irish immigration to Baltimore was linked directly to the city's international commercial contacts. Ireland and Germany were the major markets for the wheat and tobacco exported from Baltimore. Because commercial vessels returning from Europe frequently had no cargo, they often booked low-fare passenger travelers to America to make up for lost profits (Aberbach:29-30). When these impoverished immigrants arrived in Baltimore, they joined relatives and friends who had preceded them, and formed close-knit, ethnically distinct communities. German immigrants comprised a significant portion of the population in Western Baltimore, where they quickly established their own banks, newspapers, small businesses, and houses of worship.

The Civil War temporarily interrupted Baltimore's economic progress. Many Baltimoreans were Southern sympathizers, and in April, 1861, a skirmish ensued between Northern troops and pro-Southern demonstrators near the Camden Street Station. From then on, Union troops enforced martial law in the city, and Baltimore remained relatively isolated for the remainder of the war (Scharf 1881:788-791). Once the war ended, roads and railroads were repaired and commercial expansion resumed.

Period of Industrial Dominance (1870 - 1930)

During the post-Civil War era, Baltimore became the undisputed industrial center of Maryland, and much of the city's industrial growth centered in neighborhoods west of Camden Station near the present project area. At the same time, the city's demographic composition also underwent considerable change. Baltimore's African American population increased substantially, fueled by an influx of freed slaves, many of whom came from Virginia (Bureau of the Census 1900). A wave of "new" immigrants from Eastern and Southern Europe also began to enter the population. By the end of the nineteenth century, single-family dwellings in many formerly fashionable neighborhoods had been converted to multiple family rental units or to boarding houses. These newly-arrived residents worked at low-paying, semi-skilled industrial jobs. Many crowded into multiple-family dwellings, and living conditions in many neighborhoods began to deteriorate.

At the same time, development of mass transit systems permitted workers in the city's businesses and industries to move towards the city's outer fringes, creating the first suburbs. As the quality of life declined in the city's urban core, city dwellers who could afford to do so relocated into these outlying residential suburbs and commuted to their jobs downtown. After the turn of the century, the increased availability of automobiles accelerated this trend toward suburbanization, and by 1930, a significant portion of formerly residential space in the commercial city center had been lost to parking lots, automobile service stations, and motor freight facilities.

In the surrounding neighborhoods, the overall size of household units declined, but the number of "households" that occupied individual dwelling units increased. Single-family housing units were subdivided into multi-family apartments or rooming houses. In general, the ethnic and racial composition of these neighborhoods underwent considerable change by the end of the period, as the number of African American households rose and as immigration from Eastern Europe increased. The occupational profile of the area's residents reflected the growing industrialization and commercialization of the area; even "skilled craftsmen" often were employed in industrial settings (Bureau of the Census 1900, 1920). Eutaw and Baltimore streets became important commercial corridors; banks, hotels, and livery stables clustered along Eutaw Street, and

many residential dwellings were converted to small retail establishments or restaurants, usually with apartments above.

The expansion of the B&O RR's Camden Yards facilities also catalyzed industrial development west of the Inner Harbor (Figure 13). Heavy industrial development focused on the north side of Pratt Street, because that corridor was served directly by the Pratt Street railroad line. Most of these businesses were concerned initially with the production of building materials and supplies such as stone works and lumber yards, but by 1914, the area housed major enterprises that manufactured furniture, industrial machine belts, bed springs, and chemicals (Hopkins 1877; Sanborn 1890, 1914).

Modern Period (1930 - Present)

During the modern period, Baltimore's economic base shifted once again, as raw materials for local manufacturers came from imported rather than domestic sources. The trend towards suburbanization continued, as shopping centers and housing subdivisions proliferated outside of the city's boundaries, and more of the city's middle-class residents moved out. Despite deteriorating residential conditions, Baltimore's urban core continued to function as the region's educational, cultural, and social center. During the 1960s, concerned Baltimore business promoters and politicians undertook initiatives to revitalize the city's inner core. These initiatives resulted in the development of major urban renewal projects such as the Charles Center, the Convention Center, the Inner Harbor, and most recently, Oriole Park at Camden Yards (Papenfuse et al. 1976:362).

In the vicinity of Mrs. Pawley's lot, the number of African-American and Eastern European residents continued to increase, and more of them were employed either in unskilled jobs such as stevedores, laundresses, and draymen, or were employed as skilled craftspersons like tailors, machinists, and carpenters.

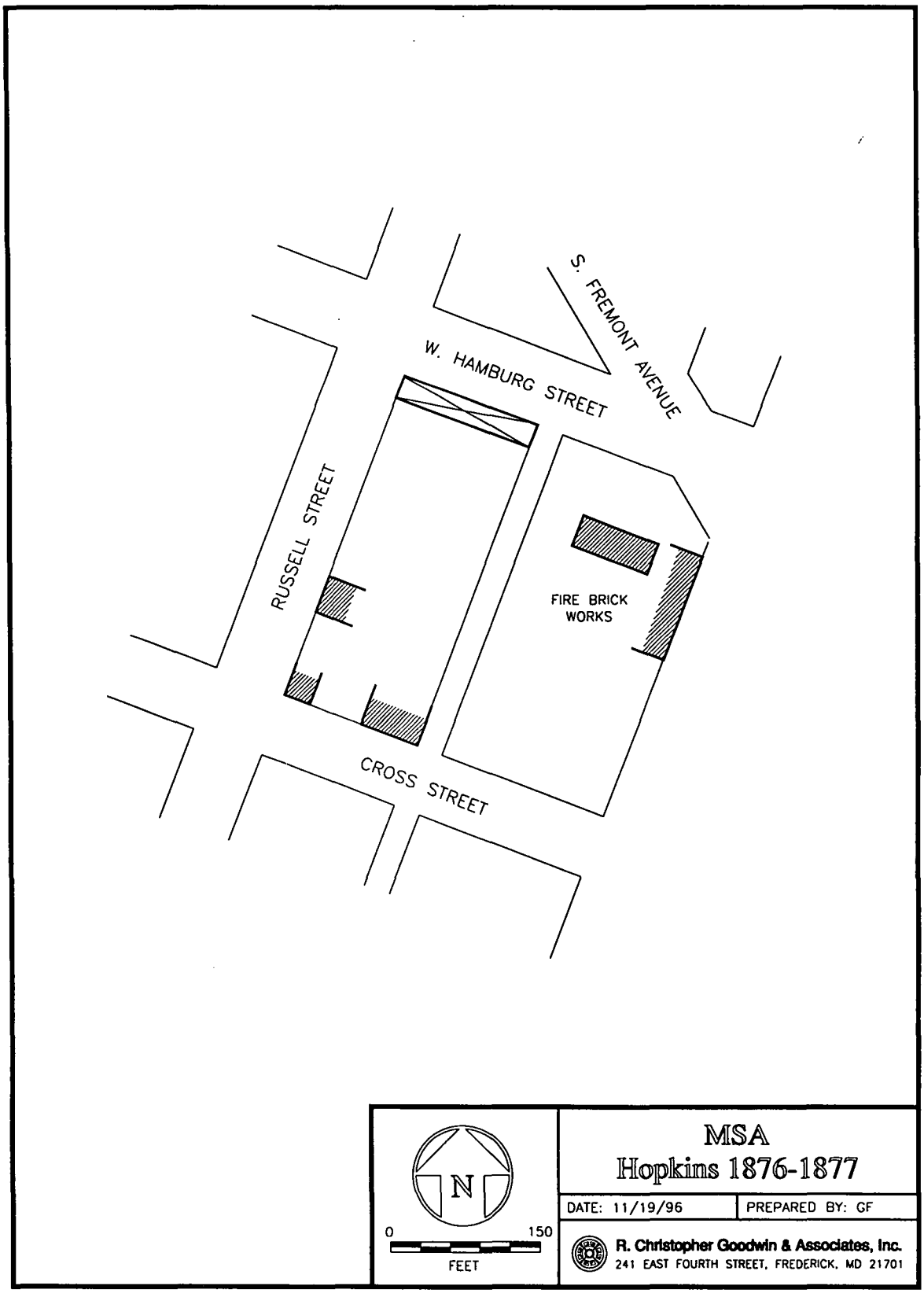


Figure 13. Excerpt from Hopkins' Map of Baltimore (1877), showing late development in the vicinity of the Pawley and Berry sites

CHAPTER IV

RESULTS OF INVESTIGATIONS FOR THE PAWLEY STONEWARE KILN (18BC88)

Introduction

The mitigation of the Pawley Kiln was undertaken in three stages: mechanized removal of overlying fill deposits to expose the base of the kiln and any surrounding, potentially undisturbed, features; excavation of selected test units and feature testing to determine the function, age, and relationship to the kiln of features exposed in the stripped area; and, completion of the removal of the rubble fill in and surrounding the kiln base.

Field investigations in stage one comprised the monitored and incremental removal of the recent fill materials overlying the kiln feature, and the exposure of undisturbed subsoil in the surrounding area. Based on archival and historic map data and a preliminary disturbance study, a 20 x 5 m area extending south of the kiln was selected for stripping. This area was designated as the highest probability area for intact features or deposits in the vicinity of the kiln: the area to the north had been cleared during the 1989 investigations; the area to the east historically was occupied by the Berry Brick works, and more recently by the buildings, loading dock, and basements related to the Parks Sausage factory; and Russell Street and its associated utility corridors ran along the western boundary of the selected area.

Removal of overlying fill materials exposed a series of historic architectural and landscape features that included foundation walls, soil stains, post holes, and historic utility trenches (Figure 4). The second stage of excavations comprised the investigation of these features to determine their age, function, integrity, and relationship to the kiln. This investigation was accomplished through the placement and manual excavation of six 1 x 1 m excavation units, and investigation of individual features. These investigations revealed that the brick foundation walls were related to rowhouse construction along West Cross Street, after the operation of the kiln was discontinued. In addition, the related features were remnants of soil features and yard patterns related to the

occupation and subsequent destruction of the rowhouses. These features contained a variety of materials related to kitchen activities, especially food preparation. Animal bone and nineteenth century ceramics composed the majority of artifacts collected from these features.

The final stage of field investigations entailed removal of the remaining materials within the kiln base, and testing the features and deposits directly outside of the kiln. These features included the extensive deposit of brick fragments adjacent to the west side of the kiln, and a series of post holes approximately 1 m west of the kiln base. Although interrupted by a later utility trench, the remnants of an additional fire box were found on the southwest side of the kiln base, within the rubble deposit. The materials and configuration of this opening were similar to the configuration of the fire box on the opposite side (recorded in 1990), and composed a small brick-lined opening in the kiln accessed by a basin-shaped pit dug into subsoil. Like the opposite opening, this pit had been filled with broken kiln furniture and brick rubble. Additional testing in the rubble feature confirmed its origin with the destruction of the kiln; discarded brick fragments and kiln furniture filled the excavated pit and fire box. The series of three overlapping postholes immediately west of the kiln had been impacted by later disturbance, and their relationship to the kiln was unclear. Only the base of the postholes remained and these were filled with destruction debris from the kiln. These may represent posts which supported a roof or shed that also were removed when the kiln was demolished.

Approximately 10,150 fragments of kiln furniture were recorded in the field. These included saggers in a variety of sizes, coils and spools, as well as some unidentifiable forms probably used as draw tests. All vessel fragments were retained for further analysis. Several previously unrecorded vessel forms and decorative motifs were present.

A detailed description of the field and archival investigations, and the results of analysis and interpretation are presented below, beginning with the a general background for stoneware manufacture, a regional context for stoneware manufacture in Baltimore in the nineteenth century, and site specific archival data for the Pawley occupation of the lot at the corner of Russell and Cross Streets. These background and contextual data are followed by the results of archeological

investigations for the Pawley kiln, including a description of the findings from test unit excavations and feature testing. Next, the results of the analysis of stoneware wasters and kiln furniture from the kiln are presented, followed by a discussion of applicable research questions from the mitigation plan.

Finally, contextual information, and field and laboratory results for the features that date from the period following the cessation of kiln operations are presented. That section includes a brief contextual background, the results of unit excavations and feature testing, and the results of laboratory analysis. This section also ends with a discussion of research questions applicable to this period of occupation.

Archival Background

Property History

Baltimore Block #925, in which the James Pawley stoneware pottery and the Berry Brick Yard pug mill sites were located, was annexed to the city in 1783 (Presbury 1783). By the end of the eighteenth century, property lines and streets had been established in this area (Presbury 1783; Hart 1792). Hart's survey shows that at least two dwellings occupied lots in the eastern and western halves of Block 925.

During the early nineteenth century, five individuals owned portions of this block: John W. Berry owned most of the eastern half of the block between Warner Street and Claret Alley; Mrs. McMechen owned one small (66 x 155 ft) parcel at the corner of Cross and Warner Streets; the heirs of Captain Nagle, a major late eighteenth century brick manufacturer, controlled the lot at the corner of Russell and Hamburg Streets; John W. Berry's 155 x 264 ft lot, which had been improved by the addition of a brick kiln and a shed, occupied the mid-section of the western half of the block; and James W. Pawley owned the 66 x 155 ft lot at Russell and Cross Streets that included the "brick pottery" (Tax Assessors Record 1838:Ward 11, 60).

By 1858, John and George Berry had acquired all of Block 925 except for Pawley's lot (Tax Assessors Record 1858-1859:491), and by the 1870s, their enterprise dominated the entire block.

The Berry lots on Russell Street were identified as "unimproved" (Tax Assessors Record 1876:265, 1655), suggesting that the 1838 brick yard had been discontinued; fire insurance maps show that new bricksheds later were built on these lots (Sanborn 1890:III, 115). The Pawley property at Russell and Cross Streets was subdivided and developed during the middle and late nineteenth century. By 1845, the still intact lot contained a three story brick dwelling, but the stoneware kiln was gone (Ward 18 Tax Assessors Record 1846:175). By 1858, Herman Thaye had purchased the 25 x 66 ft lot at the corner of Cross and Russell Streets, and Ruth Ann Pawley owned the three-story brick dwelling and the remaining 66 x 130 ft lot where the 1838 stoneware pottery kiln probably had been located (Tax Assessors Record 1858-1859:394). During the next decade, the Pawley lot was subdivided further into six single residential lots, and a single larger commercial lot at 536 West Cross Street. The commercial lot first was used as a wood yard (Sanborn 1890:III, 115; 1901) and later was converted to an automobile service facility (Sanborn 1914) (Figure 14). The remainder of Block 925 was developed as a residential neighborhood after the Berry Brick Company vacated the block between 1890 and 1901.

Stoneware Production and Distribution in the Mid-Atlantic Region

James W. Pawley, who owned the pottery at the corner of Russell and Cross Streets until at least 1845, was only one player in a region that was noted for its ceramic industry in the nineteenth century. This section develops a regional context for production, marketing, and distribution of stonewares in the southern Mid-Atlantic region during Pawley's tenure as a manufacturer and distributor of stoneware.

Production Centers. The Shenandoah Valley of Virginia and its counterpart Great Valley of Maryland and Pennsylvania emerged as a major ceramic-producing region during the early to middle nineteenth century. In Maryland, the earliest well-known potter and the progenitor of others who developed the stoneware tradition, was Peter Bell, who established an earthenware pottery in Hagerstown early in the nineteenth century. Hagerstown, originally a center for earthenware production, boasted four potteries by 1813. The Hagerstown potters marketed their wares to a

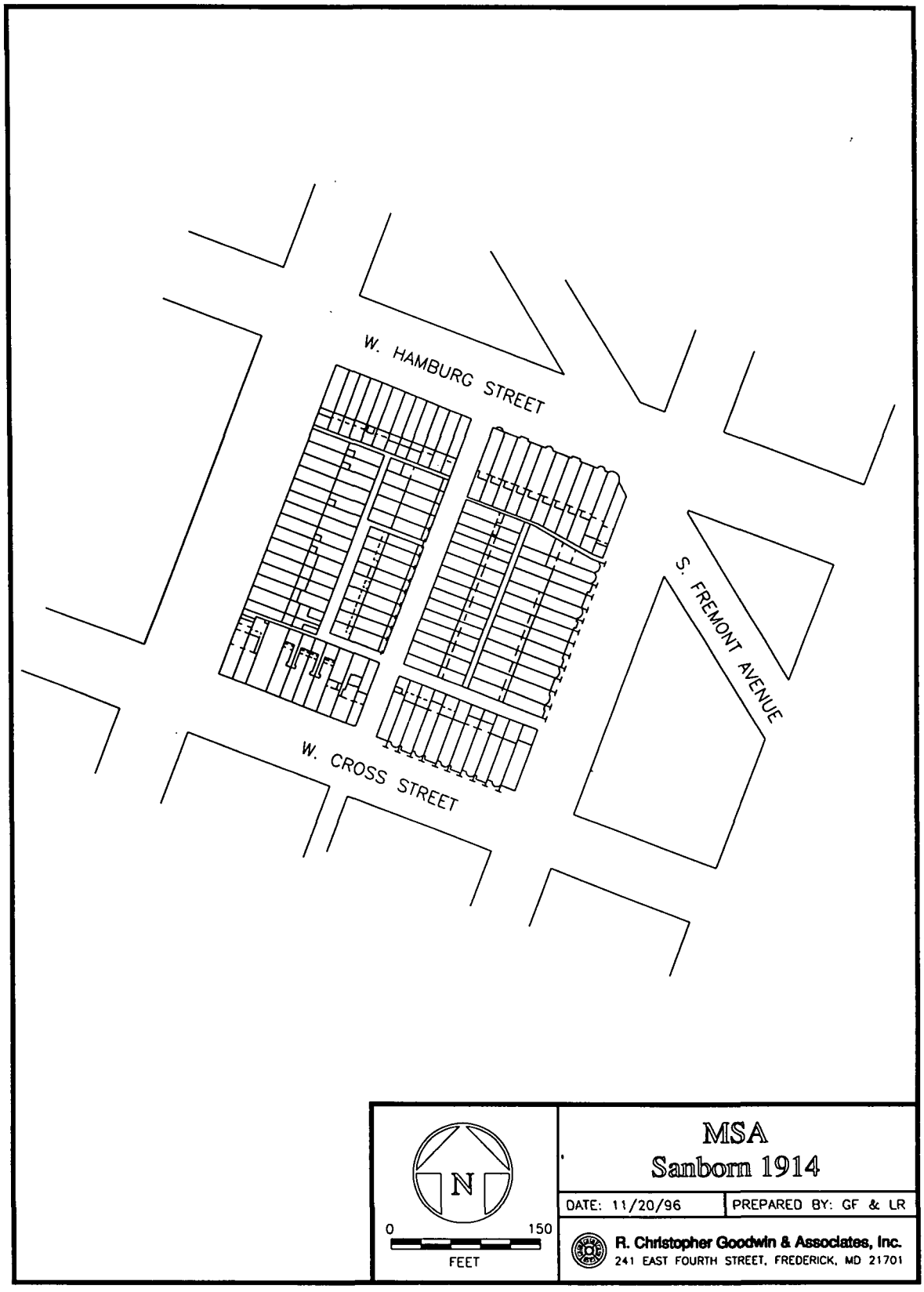


Figure 14. Excerpt from the Sanborn Fire Insurance Map for 1914, showing the increased industrialization of the neighborhood

relatively confined region that included Martinsburg, West Virginia, and Hancock and Funkstown, Maryland (Rice and Stoudt 1929:24-26).

Peter Bell's sons established the family's reputation as stoneware producers. In the 1830s, John Bell established a pottery factory in Waynesboro, Pennsylvania, while Samuel and Solomon Bell moved south into Strasburg, Virginia, where they assumed ownership of a previously established pottery that produced both earthenwares and stonewares (Rice and Stoudt 1929:41-43). Other stoneware potters clustered in the Strasburg vicinity throughout the nineteenth century, and the stoneware industry remained a major economic enterprise in the region until ca. 1907 (Rice and Stoudt 1929:*passim*).

The City of Alexandria, Virginia, also became influential in regional stoneware production in 1810, when John B. Swann established a stoneware factory on Wilkes Street. Alexandria's stoneware industry also developed as an offshoot of the city's earlier earthenware industry, whose major producers were Lewis Plum and Henry Piercey. Swann's initial production consisted of brown stonewares reminiscent of English types, but by 1819, he had begun to produce grey-bodied, cobalt-decorated wares (Myers 1983:9). The Swann business failed financially during the 1820s and was purchased by Hugh Smith, who operated it through the early 1840s. The pottery subsequently was sold to Benedict C. Milburn, a former Smith employee. The Alexandria operation continued to produce stoneware through the late 1870s (Myers 1983:29). Other competitors in the Potomac region included two stoneware producers in the District of Columbia (Myers 1983:25).

Baltimore was one of the larger ceramic production centers in the southern Mid-Atlantic region. The earliest stoneware potters recorded within the city were Thomas and Joel Morgan, who established a factory on the corner of Green and Pitt Streets in 1794. Their production apparently consisted largely of pitchers and jars (Pearce 1959:30). By 1820, the Federal census of manufactures indicated that there were ten potteries in the city, most of which were located in Old Town or east of Charles Street, despite an 1812 city ordinance prohibiting construction of any more kilns within the city limits (Pearce 1959:45). Only two of these factories produced stonewares exclusively, while another three produced both earthenwares and stonewares. The city boasted an

aggregate of 15 horsedrawn mills to grind pottery clays, and 5 mills to produce glaze components; a total of 35 men and 12 boys were employed by the industry at that time (Pearce 1959:131). Many firms employed independent artisans, and at least fifteen apprentices are listed in Baltimore records for the period from 1825 to 1835. The use of apprentices and independent "free-lance" potters makes it difficult to ascertain who was employed by whom at any given time.

By the 1830s, when Pawley apparently was most heavily engaged in stoneware manufacturing, Baltimore's pottery industry had begun to decline. The slump was due in part to the nationwide depression of 1837, and to fierce competition from British manufacturers who dumped their wares on the American market. By 1840, there were 9 potteries within the city, including three in the Eleventh Ward (Pearce 1959:69-70, 132). Table 1 presents a list of the city's stoneware potters during the period when Pawley's kiln was in operation (Pearce 1959:*passim*). The fact that Pawley himself is not on this list suggests that he either built or bought the kiln, and then employed one or more independent potters to operate the pottery.

The potter(s) employed by Pawley have not been identified. Skilled potters frequently were itinerant, and in Baltimore they apparently changed employers frequently (Pearce 1959:*passim*). Matchett's *Baltimore Director* for 1838 listed a total of 18 potters in the city. Only one, William Trapnell, lived the general neighborhood of the pottery, at 82 Conway Street.

Surviving the downward spiral in the manufacture of ceramics required changes on the part of Baltimore's potters. One potter who successfully adapted was Mauldin Perine, whose factory was located at Lexington and Pine Streets. Perine diversified his line, expanding from producing just standard kitchen wares to include bed pans, spittoons, portable "furnaces," and even fire brick (Pearce 1959:72). In common with other Baltimore potteries, he also probably shifted from hand-made, wheel-thrown production to mechanical mold-made techniques (Myers 1983:25). The fact that, by 1845, Pawley's kiln at Cross and Russell streets had been replaced by a series of subdivided lots with brick dwellings on them suggests that Pawley himself had abandoned production by that time.

Table 1. Stoneware Potters in Baltimore: 1820-1850

Name	Firm Name	Location	Dates of Operation
William H. Amos (Amoss)	Morgan & Amos	Pitt and Green, Old Town	1812-1840
William Y. Amos	N/A	Pitt and East, Old Town	1842-1845
Vachel Black	Black and Parr; independent	Pitt Street Eutaw Street Paca @ Dutch Alley	1819, 1822-24 1827-1831 1835-1840
George Henry Davidson	Independent	Unidentified	1832-1851
James Kelly	Independent	Ward 5 (Old Town)	1829-1867
N/A	Earnest and Cowles	Ward 1	1850
David Parr, Jr.	Independent	Eden and Dulany Pitt Street Calvert Street*	1831-1850 1840s*
James Parr	Maryland Pottery	55 South Street	1847-1855
Mauldin Perine	M. Perine & Company	Lexington at Pine Baltimore at Schroeder	1827-1847 ca. 1845-1865

By the 1880s, Baltimore's ceramic industry had changed radically. Only six stoneware and earthenware manufacturers still survived, but they employed 271 employees and their products had a combined value of $254.6 thousand (Merchants and Manufacturers Association of Baltimore [MMAB] 1882:49). Consolidation, mass production and changing consumer tastes all undoubtedly played a part in precipitating this change. By the late nineteenth century, the city's major ceramic producer, the massive Edwin Bennett Pottery Company (Hutzler Brothers 1933), produced not stonewares, but the characteristic whitewares typically found on almost every archeological site of the period.

Marketing: The Retail Ceramic Merchant

Pawley's association with the stoneware kiln masks his true occupation. City directories throughout the period reveal that James W. Pawley was in fact the proprietor of a retail "China, Glass, and Queensware" (Matchett 1834), "China" (Matchett 1837-1838), or "Crockery" store (Matchett 1842). Baltimore tax lists for the 1850s, and entries in city directories for the 1870s, also indicate that Pawley's son, James, Jr., and his grandson Finley continued the business. The Pawleys' various retail outlets were located between 18 and 25 Calvert Street (Matchett 1834-1842; Woods 1879), north and east of the kiln site. Pawley's involvement in stoneware production undoubtedly represented an attempt to guarantee a supply of utilitarian wares for his retail outlet.

Such an arrangement was not unusual. In Alexandria, Virginia, retail merchants Hugh Smith and Robert Miller patronized the various operators of the Wilkes Street stoneware pottery in the same way (Myers 1983:16-19). Smith, an importer of English and Oriental ceramics, continued in business for over fifty years. He also financed John Swann's independent pottery during the early 1820s, and finally purchased the complex in 1825. Swann thus became an employee producing stoneware for Smith's retail store (Myers 1983:11). During this period, merchant Robert Miller, who competed directly with Smith, also utilized the Wilkes Street pottery as a source of utilitarian wares sold by his firm, R. H. Miller and Son (Myers 1983:16).

Both Smith and Miller marketed their wares across a wide geographic area of northern and western Virginia and western Maryland. Their distribution territory extended as far west as Charlestown, Leesburg, Warrentown, Woodstock, and Winchester in Virginia, and Boonsboro, Cumberland, and Hagerstown in Maryland (Myers 1983:17). Their customers undoubtedly were smaller general merchandise retailers like Beall and Kealhofer, "Tea dealers, Grocers, and Wine Merchants" of Hagerstown, who stocked everything from venison hams and sperm oil to china, glass, and stonewares (*Torch Light and Public Advertiser* 1839). Advertisements for these local retailers frequently mentioned that they had procured their stock from suppliers in large urban centers. Washington Hyland of Elkton boasted that his merchandise, which included dry goods, groceries and crockery (including "hardware"), had been purchased from dealers in Philadelphia, Baltimore and New York (*Cecil Gazette* 1838:*passim*). Two general merchandise stores in Westminster, Maryland, also claimed that their stock had come from the city, perhaps from a larger merchants like Pawley (*Democrat and Carroll County Republican* 1842:*passim*).

Pawley apparently did not advertise. Systematic sampling of the commercial listings of two Baltimore newspapers, the *Baltimore Clipper* (1841) and the *Baltimore Republican and Daily Argus* (1842) failed to reveal even one advertisement for Pawley's Calvert Street outlet. Nor could any listings for Pawley be found in the three other Maryland publications sampled for the same period. Perhaps Pawley's consistent directory listings brought in enough retail trade to make newspaper advertising unnecessary.

An interesting post-script related to marketing practices of Baltimore's china and glass retailers occurred during the post-Civil War period. Scharf's (1881:446) *History of Baltimore City and County* notes the formation of the Baltimore Crockery and Glassware Association, apparently organized to protect specialty dealers like Pawley from competition from tea vendors, groceries, country stores, and wholesale auction houses. Finley Pawley, grandson of James W. Pawley, was one of the 19 original members of the association.

Stoneware Production: Traditions and Technology

The European roots of the American stoneware industry can be found in the English and German stoneware potting traditions developed during the sixteenth and seventeenth centuries. Genealogical and archeological data attest to the strong connections between colonial American families of stoneware potters and to the ubiquitous use of imported British and German stonewares by American consumers through the eighteenth century (Greer 1981:13-14).

The most prevalent utilitarian products produced by American potters from the seventeenth century through the early nineteenth centuries were lead-glazed coarse red earthenwares in a variety of forms, including dairy pans, colanders, pipkins, and other hollow and flat forms. Earthenwares, fashioned from readily available local clay sources and needing less heat for firing, were relatively easy to produce; stoneware, on the other hand, required a more sophisticated technology and access to specialized clays. In the Mid-Atlantic region during the eighteenth century, there were only a few stoneware potters, including William Rogers, the "poor potter of Yorktown," who produced wares similar to British brown stoneware, and William Crolius of Manhattan, who maintained the Germanic/Westerwald stoneware tradition (Greer 1981:18).

By the early 1800's, stoneware had begun to supplant earthenware as the utilitarian ceramic of choice, because it was more durable and did not need to employ dangerous lead glazes to render it waterproof (Myers 1983:9). Stoneware also was less expensive than either metal or glass containers (Greer 1981:22).

Production Technology. Even in a small stoneware factory, the production of a finished vessel involved a myriad of steps. This section reviews the production process, the materials, and the structures associated with stoneware production. Understanding of these basic elements is critical to interpreting the features and artifacts found at the James Pawley site.

The basic process. Stoneware production began with a search for the proper clays; the underlying geology and pedology of the Baltimore area guaranteed a sufficient supply of adequate clays for producing earthenwares and stonewares as well as brick. In fact, Alexandria entrepreneur

Hugh Smith occasionally obtained clay from Baltimore (Barbara Magid, personal communication 1996).

After having identified a source of adequate clay and tested it for plasticity and purity, the potter mixed it thoroughly in a device such as a "pug mill." The plastic clay then was ready for "throwing" upon a wheel and shaping by the potter into one of the myriad forms, from drainpipes to poultry fountains, that nineteenth and early twentieth century American stoneware potters produced. Decorations were applied at or immediately after this stage. After the pieces had dried, they were ready for firing, a process which, according to Charles Forrest Bell, required three days for stoneware. When the finished product had cooled and the kiln was unloaded, space was required for storing the finished products (Rice and Stoudt 1929:61).

The pottery complex. The stoneware production process required the maintenance of a complex of buildings and structures. Machinery, materials, and space had to be allocated for storing and processing the raw materials; for housing the pottery wheels; for drying the newly thrown vessels; for applying decorations; for firing; and finally, for packaging and distributing the finished product (Greer 1981:33). The components of Swann's Alexandria factory probably were typical of the period; these included a potting house with four wheels and two kilns; a warehouse; and a millhouse where clays and glazes were prepared (Myers 1983:11). Recognition of the spatial needs of even the smallest potters is significant archeologically, for all the components of the process required some sort of structure and the arrangement of a convenient configuration to complete. The vestiges of each potter's spatial arrangement will determine the configuration and types of archeological features on pottery sites.

Materials. During the early nineteenth century, proximity to adequate sources of clay and fuel dictated the locations of stoneware potteries. Communities of stoneware producers, grouped around localized sources of appropriate clays, appeared in Manhatten and on Long Island, in New Jersey, in Pennsylvania, and in western Maryland, Virginia, and North Carolina (Greer 1981:27-28), and in Baltimore. The significance of ready access to raw materials is illustrated once again by records from John Swann's Alexandria works. In one year, Swann utilized 150 tons of clay, ten tons

of sand, and 500 bushels of salt in his operation (Myers 1983:11). The components of cobalt decoration also had to be acquired and mixed on the premises. As a base, potters utilized a substance called "graffree," calcined cobalt that was obtained in urban centers and combined with potash and white flint to produce the popular cobalt decorations on nineteenth century vessels (Rice and Stoudt 1929:45).

Kilns. In addition to the wheel, the most significant element of a pottery was the kiln, the most commonly found archeological feature on pottery manufacturing sites. During the nineteenth century, stoneware potters were converting from earlier rectangular kiln forms to the so-called "bottle" kilns. For example, prior to 1830, one major kiln in Strasburg, Virginia, was described as "rectangular with five fire holes," probably the type termed by Greer (1981:217) as a "groundhog" kiln. Most nineteenth century stoneware kilns, including Pawley's, were "bottle" kilns. John Bell's kiln, opened in Strasburg in 1833, was "round and double-arched;" its interior measured 8 ft 6 in, it was 7 ft 4 in high, and it was equipped with four fire holes and 24 flue holes to provide updraft (Rice and Stoudt 1929:43).

In a brick, two-story updraft pottery kiln, fuel (either wood or coal) was placed atop a metal grate in a firebox at the bottom of the kiln. The rising heat flowed upward through the firing chamber and exited from the top of the kiln, heating the raw pots in the process. For more even distribution of heat, some kilns had an additional low interior wall called a "bag wall" that permitted two streams of heat to be directed upward through the kiln interior. The heat was controlled by one or more dampers installed in opening(s) at the top of the kiln (Greer 1981:217). The temperature of a stoneware kiln had to be increased gradually until it reached the required level of between 1,200° and 1,300° C.; otherwise, the green pots would crack or develop bubbles as water was forced out of the matrix too quickly (Greer 1981:15, 224). The characteristic salt glaze on many stonewares was applied at the end of the firing process when measured amounts of salt were introduced repeatedly into the intensely heated kiln and vaporized onto the fired wares. Finally, the kiln was sealed and permitted to cool for two or three days before it was unloaded or "drawn" (Greer 1981:224-226).

Technical Problems. Given the manually controlled manufacturing and firing parameters of nineteenth century stoneware production, mistakes in firing almost always occurred. Misfired vessels commonly were discarded; along with kiln furniture such as saggers and handformed separators known as coils and spools, misfired "wasters" are the most frequently found items on pottery manufacturing sites. Table 2 presents some typical mistakes in firing and the characteristic defects they produced on wasters.

Results of Archeological Mitigation for the Pawley Kiln

Exterior Excavation Units

Excavation units 3, 4, and 5 were placed outside of the kiln base to test associated features or deposits (Figure 4). Excavation Unit 3 was placed slightly southwest of the kiln base to test the concentration of brick rubble and stoneware wasters that extended west and south of the kiln opening (Figure 15). Excavation units 4 and 5 were placed within the remaining fire box/opening south of the utility trench, to record the opening, and the fill materials.

Excavation Unit 3 was placed within a scatter of kiln bricks and wasters that extended to the southwest from the kiln base (Figure 16). The aim was to determine the source of the bricks, and the presence or absence of features or deposits related to the operation of the kiln. The unit was excavated in five arbitrary levels to a depth of 60 cmbs. This excavation revealed a shallow bowl-shaped depression associated with the mouth of the kiln. The feature probably was associated with the operation of the kiln, providing access to the mouth of the kiln for loading and unloading the wares, to fire the kiln, and to add fuel. This depression was filled with debris and wasters from the destruction of the kiln.

Four undisturbed, natural soil strata were present outside of the pit feature (Figure 16). These included an olive yellow (2.5Y 6/6) silty clay and light gray (5Y 7/1) silty clay filling level, separated from the underlying natural strata by a thin olive brown (2.5Y 5/4) clay lens. The natural strata included a light yellowish brown (2.5Y 6/3) sand loam B horizon and a light olive gray (5Y 6/2) clay C horizon.

Table 2. Firing Defects and their Causes (after Greer 1981)

Defect	Description	Cause
Cracking/dunting	Large cracks in body of vessels	Too rapid cooling; possible imperfections in body clay; steam expansion during firing
Broken wares		Ware stacks slip or fall during firing
Immature ware	Dry-looking exterior	Underfiring; ware unvitrified
Slumping	Deformaties in vessel shape	Excessive heating; body gives way in areas supporting weight
Bloating	Bubbles in interior of matrix	Unescaped gases in clay matrix
Uneven salt glazing	Dry patches in salt glazed surface	Insufficient silica in clay body; insufficient salt in salting process; uneven distribution of salt vapor in kiln
Blistering and peeling	Uneven applied glaze; spotted applied glaze; unglazed patches on body	Direct contact between kiln flames and applied glazes during firing; improper amount of clay in glaze mixture
"Crawling"	Glaze beads or clumps unevenly on vessel	In alkaline glazed wares, recognized as a leopard-like finish
"Pinholing"	Small pinholes or blisters on glazed vessel exterior	Residual gases from interior of pot escape through vents in glaze
Scarring	Scar marks on exterior of vessel	Improper stacking of items in kiln; kiln furniture adheres to vessel during firing

Figure 15. Photograph of the brick rubble feature adjacent to the southwest side of the kiln base

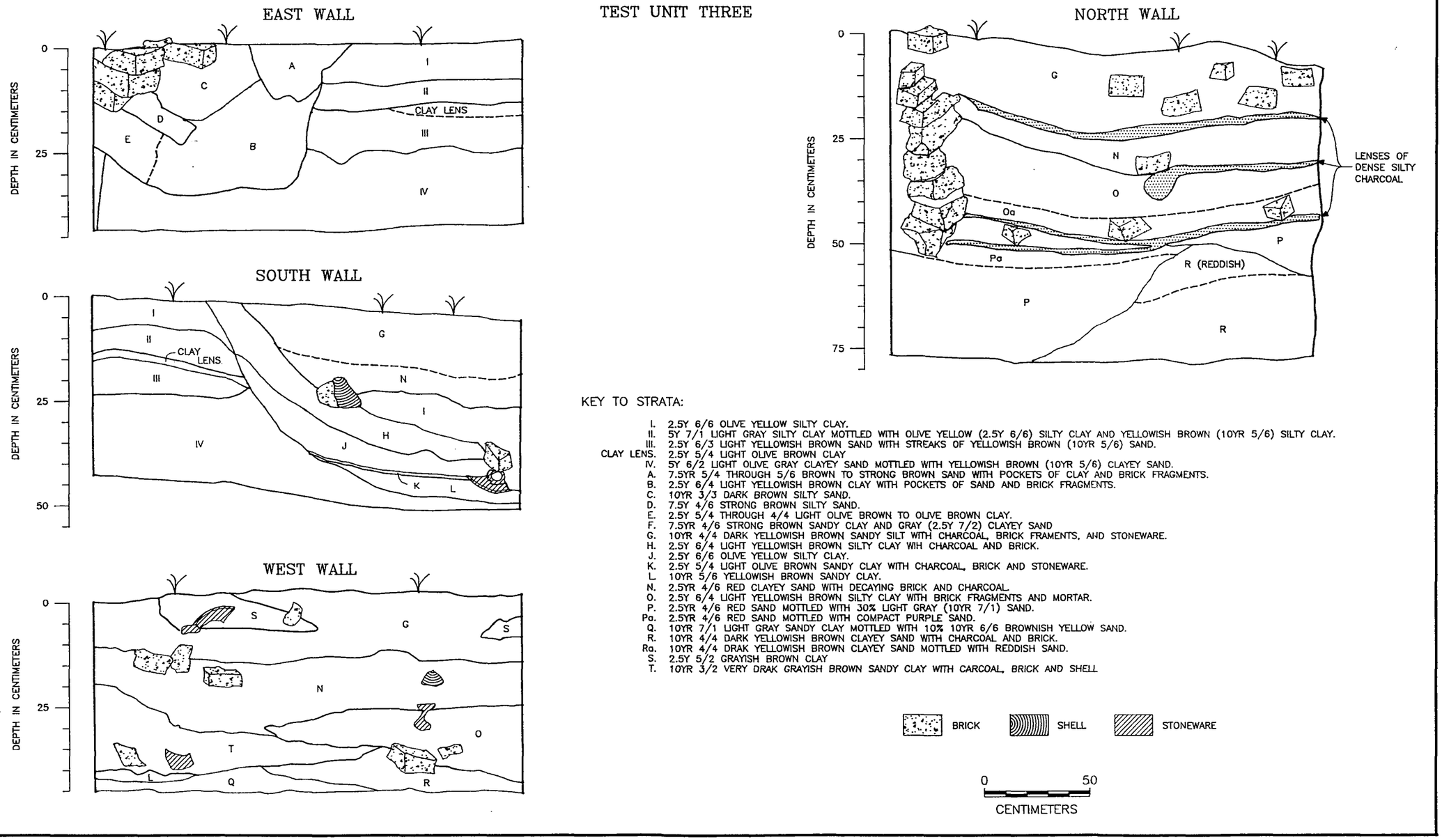


Figure 16. Profile drawing of TU3, showing natural soils, fill materials and rubble

Within the feature, soils reflected filling after the kiln had been removed. The fill matrix was composed of pockets and overlapping strata of gray, yellowish brown, dark brown, red and olive brown silty and sandy clays (Figure 16). These generally included charcoal, kiln brick fragments, stoneware vessel wasters and fragments of stoneware kiln furniture. Kiln bricks or kiln brick fragments accounted for approximately 80 per cent of the matrix.

A total of 524 artifacts were retained from this test unit. The majority were from the second level, with a sharp decline with depth; only eight items were retained from the lowest level. Of the total, 415, largely domestic gray stoneware, were datable. These provided a mean date of 1842 for the materials from this excavation unit. The TPQ for most of these materials was 1840. The Terminus Post Quem (TPQ) is a general reference to the earliest known date of manufacture for materials present in the feature fill. The use of this date indicates that the feature fill could not have been deposited before the earliest date of manufacture of the wares it contains. The sample of stoneware wasters or kiln furniture accounted for 484 of these objects, or 92 per cent. Of these, 407 were vessel wasters, discarded portions of misfired or broken hollowware vessels. An additional 1,115 fragments of kiln furniture were cataloged in the field. Those materials included sagger, spool, coil, prop and miscellaneous fragments as indicated in Table 3. The saggers included a range of identifiable sizes from 2" to 10 " in diameter. These reflect the wide variety of sizes of vessels fired in the kiln. A sample composed of 77 sagger and ring fragments, and two fragments of kiln bricks, was retained from this unit.

Approximately 8 per cent of the collection from this unit was not related to stoneware manufacture. These included architectural materials, kitchen glass and ceramics, and some miscellaneous items (Table 4). Architectural materials included window glass, and cut and unidentifiable nails. Kitchen objects included glass, ceramics, and biological items. Kitchen glass included a single shard of table glass; ceramics were represented by a fragment of whiteware (1820-Present). Biological items related to kitchen activities were represented by several oyster shells. Miscellaneous items included coal, metal, and kiln bricks. These materials were present in post-destruction filling episodes, and reflect activities not related to the operation of the kiln.

Table 3. Site 18BC88: Summary of Kiln Furniture

		Test Unit 3						Test Unit 4							Test Unit 5						Feature 8102 Southwest Quadrant				Feature 8102 Southeast Quadrant			
		1	2	3	4	5	Total	1	2	3	4	5	7	Total	1	2	3	4	5	Total	1	2	3	Total	1	2	3	Total
Sagger	2"	3	2				5							0						0				0	3	2		5
	4"	15	7	2	1		25	12	4	3			1	20						0	1	1		2	4	5		9
	5"						0							0						0	2	2	10	14	1	8		9
	6"	55	3	3			61	28	2	11		4	1	46						0	4	3	18	25	2	19		21
	7"						0							0						0	2		9	11		1	1	2
	8"	21	2		1		24			2		1		3						0			1	1	2			2
	10"	15	1				16							0						0				0	1			1
	Fragment	113	3	7	3	2	128	17	8	9		10		44						0	5		31	36		18	2	20
Sagger Total		222	18	12	5	2	259	57	14	25	0	15	2	113	46	14	4	3		67	14	6	69	89	13	53	3	69
Ring	2"		1				1																	0				0
	4"	1	3				4																	0	2			2
	5"						0																1	1	1			1
	6"	7		2			9														2	2		4	3	2	1	6
	7"						0															2	1	3	2			2
	8"	7					7															2		2	2			2
	9"						0															4		4	3			3
	10"	7					7															1		1	4			4
	Fragment	23		3			26																	0				0
Ring Total		45	4	5			54								1				1	2	2	11	2	15	17	2	1	20
Spool		27	3	10	3	5	48	16	17	6	2	24	1	66	13	4	5		1	23	65	55	152	272	136	177	197	510
Coil	Flat	100	67	77	11	11	266	39	14	40	9	72	18	192						0				0				0
	Bent		28	47	11	2	88	13	9	7	2	16	1	48						0				0				0
Coil Total		100	95	124	22	13	354	52	23	47	11	88	19	240	54	18	12	10	29	123	330	246	436	1012	699	1442	588	2729
Unidentified		226	45	67	6	10	354	53	18	52	4	27	18	172	46	18	4	11	8	87	256	121	219	596	454	231	385	1070
Taco			1	5	5	5	16			9				9						0			24	24		14	98	112
Patty			2	15	5	3	25	11	7	3	2	37	7	67				6	4	10	9	18	132	159	18	56	2	76
Prop		1		2			3	3	2	1		1		7						0				0				0
C-shape							0							0						0	148	232	420	800	130	337	221	688
Draw Trial					1	1	2					1		1						0				0				0
Grand Total		621	168	240	47	39	1115	192	81	143	19	193	47	675	160	54	25	30	43	312	824	689	1454	2967	1467	2312	1495	5274

Table 4. Site 18BC88: Summary of Materials Recovered from Feature 8102

	Functional Group	Class	Type	Subtype	TU 03	TU 04	TU 05	FEA. 8102	FEA. 8102 SW	FEA. 8102 SE	FEA. 8102 Clean Up	Grand Total
Kiln Related Materials	Kitchen	Ceramic	Domestic Gray Stoneware	Alkaline Glaze	0	0	0	0	3	8	0	11
				Gray Body w/Brown Glaze	7	8	9	0	18	11	7	60
				Gray Salt-Glaze w/Blue Decoration	43	11	4	1	31	35	7	132
				Gray Salt-Glaze, Floral	18	14	13	1	13	5	4	68
				Gray Salt-Glaze, Undecorated	187	50	57	9	215	157	49	724
			Industrial Stoneware	Gray-Bodied (ginger beer)	152	56	84	8	10	4	0	314
	Kitchen Total				407	139	167	19	290	220	67	1309
	Industrial	Ceramic	Kiln	Brick	2	2	0	2	9	1	1	17
				Other	0	4	1	0	16	4	0	25
				Sagger	23	19	8	12	83	71	72	288
				Separator	52	45	5	126	76	37	79	420
				Slag	0	2	0	0	14	0	5	21
	Industrial Total				77	72	14	140	198	113	157	771
	Grand Total Kiln Related Materials				484	211	181	159	488	333	224	2080
Non-Kiln Related Materials	Activities	Glass	Miscellaneous	Lamp Glass	0	2	0	0	0	0	4	6
		Metal	Miscellaneous Hardware	Miscellaneous Machine Part	0	3	0	0	0	0	0	3
				Non-Electrical Wire	0	0	0	0	0	0	1	1
				Other	1	0	0	0	0	0	0	1
	Activities Total				1	5	0	0	0	0	5	11
	Architecture	Ceramic	Miscellaneous	Ceramic Fixture (plumbing)	0	0	0	0	0	0	1	1
				Sewerage/Drainage Pipe	0	0	0	0	0	0	1	1
		Glass	Architectural Element	Window Glass	10	135	0	0	2	0	13	160
		Manufactured	Brick	Fragment	0	2	0	0	0	0	0	2
		Metal	Construction Hardware	Bolt and/or Bracket	0	0	0	0	0	0	2	2
			Machine Cut Nail	2-4"	0	0	1	0	0	0	0	1
			Machine Cut Nail, Common	> 4"	0	0	1	0	0	0	0	1
				2-4"	1	4	1	2	3	0	3	14
				Fragment	3	6	0	0	5	4	4	22
			Unidentified	Cut/Wrought Nail	0	0	1	0	9	2	2	14
				Nail	1	6	0	0	4	3	0	14
			Wire Nail, Common	< 2"	0	0	0	0	0	0	2	2
				2-4"	0	1	0	0	0	0	0	1
	Architecture Total				15	154	4	2	23	9	28	235
	Clothing	Ceramic	Ceramic Clothing	Porcelain Button	0	0	0	0	0	0	1	1
		Glass	Glass Clothing	Button	0	1	0	0	0	0	0	1
	Clothing Total				0	1	0	0	0	0	1	2
	Furniture	Ceramic	Miscellaneous	Flower Pot	0	1	0	0	0	0	0	1
	Furniture Total				0	1	0	0	0	0	0	1
	Industrial	Metal	Miscellaneous	Other	0	0	1	0	0	0	0	1
	Industrial Total				0	0	1	0	0	0	0	1
	Kitchen	Biological	Food Related	Bone	0	1	1	0	0	0	1	3
				Tooth	0	1	0	0	0	0	0	1
				Unidentified Bone	2	2	0	0	0	0	0	4
			Shell	Clam	0	0	0	1	0	0	1	2
				Oyster	12	0	0	1	4	0	2	19
		Ceramic	Ironstone	Gray Undecorated	0	0	0	1	0	0	3	4
				Transfer-Printed	0	1	0	0	0	0	0	1
			Later Porcelain Type	Undecorated Porcelain, Hard	0	0	0	0	1	0	1	2
			Pearlware	Finger-Painted	0	0	0	0	11	0	0	11
				Undecorated	0	0	0	0	0	0	1	1
				Underglaze Blue Hand-Painted	0	1	0	0	0	0	0	1
				Underglaze Floral Polychrome	0	1	0	0	10	0	0	11
			Redware	*Black Glaze, Thick*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*
				Brown Glaze	2	0	0	0	0	0	0	2
				Dark Brown/Black Glaze	0	0	0	0	1	0	0	1
			Tin Enamelled Earthenware	Without Glaze	0	1	0	0	0	0	0	1
			Unidentified Ceramic	Unidentified Earthenware	0	1	0	0	0	0	0	1
			Whiteware	Annular	0	1	0	0	0	0	2	3
				Cream-Colored Earthenware	2	1	0	0	0	0	0	3
				Polychrome Hand-Painted	0	0	0	1	0	0	0	1
				Shell-Edged	0	1	0	3	0	0	1	5
				Sponged	0	1	0	0	0	0	0	1
				Transfer-Printed, Blue/Black/Brown	0	1	0	1	0	0	4	6
				Undecorated	1	7	0	1	7	0	10	26
				Willow Transfer-Printed	0	1	0	0	3	0	0	4
			Yellow Ware	*Dipped/Annular*	*0*	*3*	*0*	*0*	*0*	*0*	*0*	3
				Rockingham/Bennington	0	1	0	0	0	0	0	1
		Glass	Blown in Mold	Amber	0	0	0	0	0	0	2	2
				Aqua	0	1	0	0	0	0	3	4
				Embossed	0	1	0	0	0	0	0	1
				Light Green	0	1	0	0	0	0	0	1
			Machine Made Bottle	Amber	0	1	0	0	0	0	0	1
				Clear	0	7	0	0	0	0	1	8
				Embossed	0	1	0	0	0	0	0	1
				Light Green	0	0	0	0	0	0	2	2
			Melted Glass	Light Green	0	1	0	0	0	0	0	1
			Rickett's Type 3 Piece Mold	Dark Green	1	0	0	0	0	0	0	1
			Table Glassware	Unidentified Tableglass	1	3	0	0	0	0	0	4
			Unidentifiable Bottle Glass	Clear	0	1	0	1	0	0	0	2
			Unidentifiable Fragment	Milk Glass	0	2	0	0	0	0	0	2
	Kitchen Total				21	45	1	10	37	0	35	149
	Miscellaneous	Metal	Unidentified Object	Iron/Steel	2	0	0	1	0	0	0	3
				Non-Ferrous Metal	0	1	0	0	0	0	0	1
		Stone	Miscellaneous Stone	Coal	1	0	0	0	0	0	0	1
				Coal Slag	0	1	0	0	0	0	0	1
	Miscellaneous Total				3	2	0	1	0	0	0	6
	Personal	Ceramic	Tobacco Pipe	Ball Clay Bowl	0	1	0	0	0	0	0	1
				Ball Clay Bowl, Molded	0	1	0	0	0	1	0	2
				Ball Clay Stem	0	0	0	0	1	0	3	4
				Fragment	0	0	0	0	0	0	1	1
				Molded Ball Clay Stem	0	0	0	0	0	0	1	1
	Personal Total				0	2	0	0	1	1	5	9
	Grand Total Non-Kiln Related Materials				40	210	6	13	51	10	74	414
Grand Total					524	421	187	172	549	343	298	2494

Excavation Unit 4 was placed west of the kiln base to test the brick scatter associated with the southern mouth of the kiln (Figure 4). This scatter of brick filled a bowl-shaped depression, adjacent to the fire box, and presumably related to use of the kiln. The unit was excavated in eight arbitrary levels to a depth of 50 cmbs. Outside of the feature, two natural soil strata were present (Figure 17). These included a light yellowish brown (2.5Y 6/4) silt loam B or C horizon, and a brownish yellow (10YR 6/8) clayey sand loam subsoil.

The feature was interpreted as two overlapping deposits of masonry rubble and dark organic loam, which resulted from post-destruction filling of features related to the kiln. Within the feature, fill consisted of three to four layers of rubble and clay fill; the upper deposit in the eastern pit was comprised mainly of brick rubble, reflecting the destruction of the kiln (Figure 18, Upper). This feature appears to fill a hand dug pit which may or may not be related to either the operation or destruction of the kiln. The lower fill level appears to be redeposited sterile subsoil over a thin lens of organic material. In the deepest portion of the feature this is overlain by a dark, organic loamy stratum that includes brick rubble and stoneware wasters (Figure 18, Lower), similar to the fill in the western pit. Other materials included bottle glass, window glass, kitchen ceramics, bone, and nails.

A total of 421 items were retained from Test Unit 4, the majority from the upper filling levels. This collection included 181 datable items, mainly domestic gray stoneware wasters, which provided a mean manufacture date of 1855, and a TPQ of 1855. Of this assemblage, 211 or 50 per cent were kiln-related, either vessel wasters or kiln furniture fragments. The remaining 210 (50 per cent) were non-kiln-related artifacts representing most of the functional groups (Table 4). The type and mean manufacture dates for the kitchen ceramics and glass indicate that these materials may have originated from activities during the operation of the kiln, but are associated with post-destruction filling episodes. For example, kitchen ceramics included fragments of whiteware vessels with manufacture dates from 1820 to the present; portions of an annular whiteware vessel dated between 1840 and 1860; and sponge decorated whiteware manufactured between 1830 and 1870.

Figure 17. Photographs of TU4 showing natural soils and fill materials

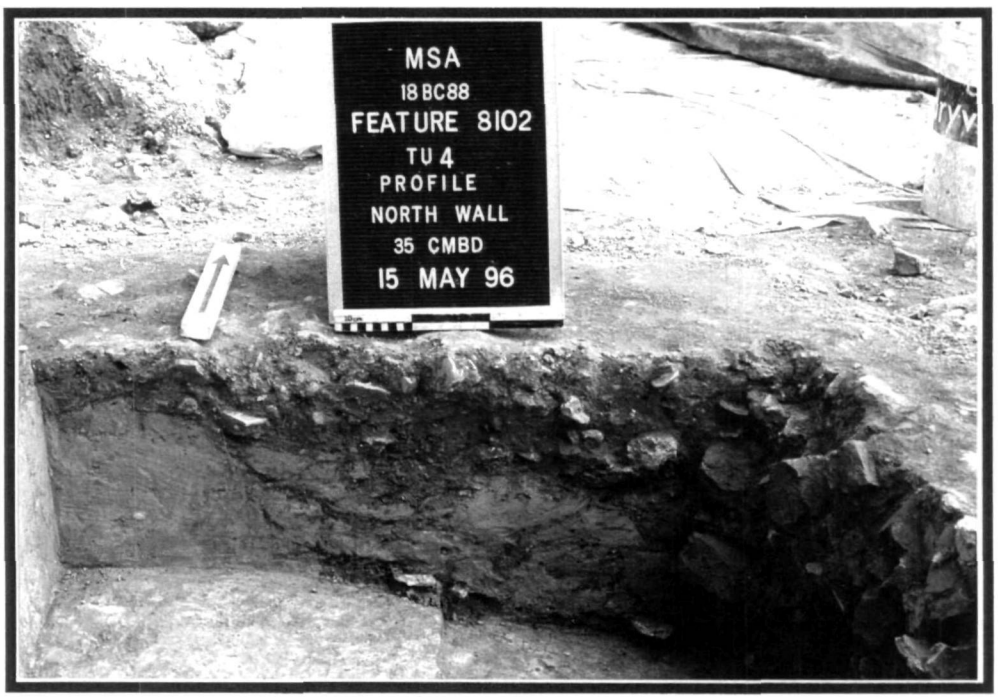


Figure 18. Photographs of the east and north walls of TU4, showing the primary and secondary deposits of filling materials

Rockingham/Bennington-type yellowware, a ceramic type that was most popular between 1830 and 1900, was present.

These ceramic types were in production during the period of operation of the kiln, and the activities which these goods represent probably were related to activities on site during the operation of the kiln. However, their presence in these filling episodes along with machine made bottle glass that post-dates 1898, indicated that they are secondary deposits, having been transplanted from some other location along with the filling materials. The examples of machine made bottles included fragments of two patent medicine bottles, with embossed panels marked with portions of the word "Baltimore".

Other objects included lamp glass, fragments of a ribbed pipe bowl, a black glass button, coal slag, portions of a flower pot, and three metal machine parts. This collection was largely architectural, with a few materials from a variety of other functional groups. This is a pattern found generally in urban filling episodes. Further evidence of redeposit is seen in the large quantity of window glass shards present in the upper levels of fill. The kiln did not have any glass components, and any related sheds probably did not include glazed windows. More likely the window glass originated in the destruction of the surrounding dwellings, or the later row houses that replaced the kiln complex after mid-century.

Kiln-related materials accounted for 50 per cent of the collection from this unit. These 211 items included both furniture and vessel wasters. The sample of kiln furniture included 72 fragments of saggers, rings and coils, while the sample of vessel wasters included 139 fragments of partially fired, misfired, or broken holloware vessels. An additional 675 fragments of kiln furniture were catalogued in the field; these included saggers, rings, spools, coils, and props as indicated in Table 3.

Excavation Unit 5 was placed adjacent to the utility trench to investigate the origin and function of the brick scatter to the southwest of the kiln, and to identify any features or deposits related to a second fire box opening. The unit was excavated in six arbitrary levels to a depth of 49 cmbs. Four filling episodes were noted. These consisted of alternating yellowish brown (10YR

4/4) and fire reddened (2.5YR 4/6) clay or silty clay loams. The brick scatter marked the location of an additional mouth or opening for the kiln. The opening itself was defined by a random brick retaining wall, similar to those present in the opening on the opposite side of the kiln (Figure 19).

A total of 187 artifacts was retained from the filling episodes within this unit. These included 170 datable items, which reflected a mean manufacture date of 1843, and a TPQ of 1828. Only five of the artifacts, scattered throughout the filling levels, were not related to the operation of the kiln: four machine cut nails, and a bone fragment. The cast iron door of the fire box was present in the fill. The remaining 181 items were vessel wasters or kiln furniture fragments. The kiln furniture sample from this unit included only 14 fragments, saved as examples of previously unidentified forms of saggers, furniture, or separators. The remaining 167 artifacts were vessel wasters.

Artifact Analysis

A total of 876 vessel wasters were retained from the kiln-related features outside of the kiln base. These included 713 vessel wasters and 163 fragments of kiln furniture (Table 4). Kiln furniture included saggers and rings in a variety of sizes, as well as spools, coils, pattys, and props used for separation of vessels (Table 4). An additional 1,890 fragments of kiln furniture were catalogued in the field, and not retained (Table 3). Analysis of sagger and ring sizes indicated that a wide range of vessel sizes were fired in the kiln, with sagger diameters ranging from 2" (5.08 cm) to 10" (25.4 cm).

Vessel wasters were catalogued for vessel form, glaze and decoration. The vessel form or part were identifiable for 665 of the waster fragments from Test Units 3, 4 and 5. Vessel forms were identified either generally as holloware, as a more specific group of forms such as jug/jar, mug/tankard, or pitcher/jar, or as a specific vessel form such as pitcher, jar, jug, or bottle. Where possible, the specific portion of the vessel was identified, either as lip, neck, shoulder, foot/base, or handle. Analysis of these materials indicated that, aside from fragments identifiable only as hollowares (18.7 per cent), the fill within the features included 12 vessel forms (Table 5). The majority of these (57.6 per cent) were bottles, with substantially fewer examples of pitcher, jar, and

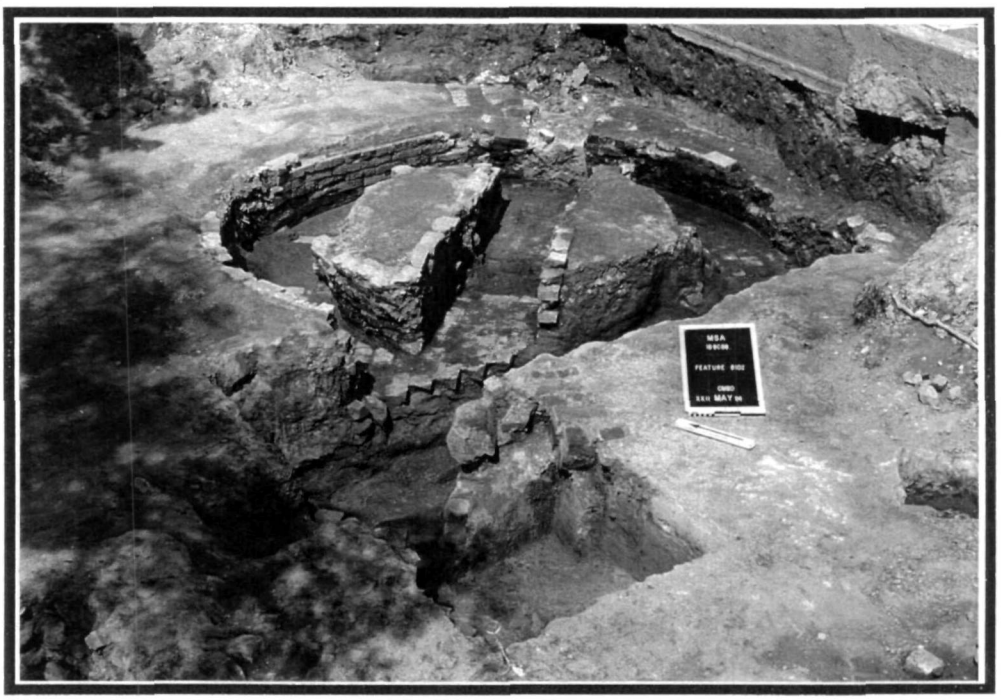


Figure 19. Photograph of TU5 showing the configuration of the second fire box

Table 5. Summary of Vessel Forms from Excavation Units 3, 4, and 5

Vessel Form	EU3	EU4	EU5	Total
Bowl/Pan	1	1	1	3
Tankard/Mug	8	2	2	12
Jar/Crock	31	2	0	33
Bottle	228	59	96	383
Pitcher	26	9	1	36
Pitcher/Jar	10	5	7	22
Crock	15	15	3	33
Flask	2	1	1	4
Jug/Jar	3	6	1	10
Jar	0	2	0	2
Jug	0	0	2	2
Holloware	77	20	38	135
TOTAL	401	122	152	675

crock fragments. The number of bottle fragments was influenced by the presence of many small fragments of unfired bottles, which may represent only a few actual vessels. However, it was impossible to mend these small fragments. If these are eliminated, and rims are used as a gross minimum vessel indicator, then there were as many pitchers as bottles/flasks present within the collection: 27 pitcher rims, and 26 bottle/flask lips or rims. These are followed in number by a few examples of crock and jar rims, and one pan rim. Bases included three flask bases, not represented clearly by the inventory of neck and rim fragments, since the modification to bottles to form flasks is made at the base, and the lip and neck remain unchanged.

The Kiln Base

During earlier investigations, the kiln base was divided into quadrants, and the northeast and northwest quadrants were removed (Figure 20, Upper); the materials within the southwest and southeast quadrants were removed during current investigations (Figure 20, Lower). The base of the kiln was filled with stoneware vessel wasters and kiln furniture; there were no soils. The wasters and kiln furniture were removed in three arbitrary levels to the base of the structure. As explained in Chapter II, all vessel fragments and wasters were retained, while kiln furniture was classified and counted on site; only a sample of kiln furniture was retained.

A later utility trench cut across the southern arc of the kiln (on the right in Figure 20, Upper), eliminating that portion of the structure. The fill was removed from the trench to 20 cm below the base of the kiln, to verify that no remnants of the structure were extant below the utility trench. The vessel wasters and kiln furniture fragments present in the utility trench fill were processed in the same manner as those from within the kiln base.

Filling materials within the kiln base reflected two separate depositions; a lower deposit related to the operation of the kiln, and an upper deposit more likely related to the destruction and subsequent filling of the structure.

A total of 1,362 artifacts was retained from these features. This total included kiln furniture and vessel wasters, along with non-kiln related materials as indicated in Table 4. An additional 8,241

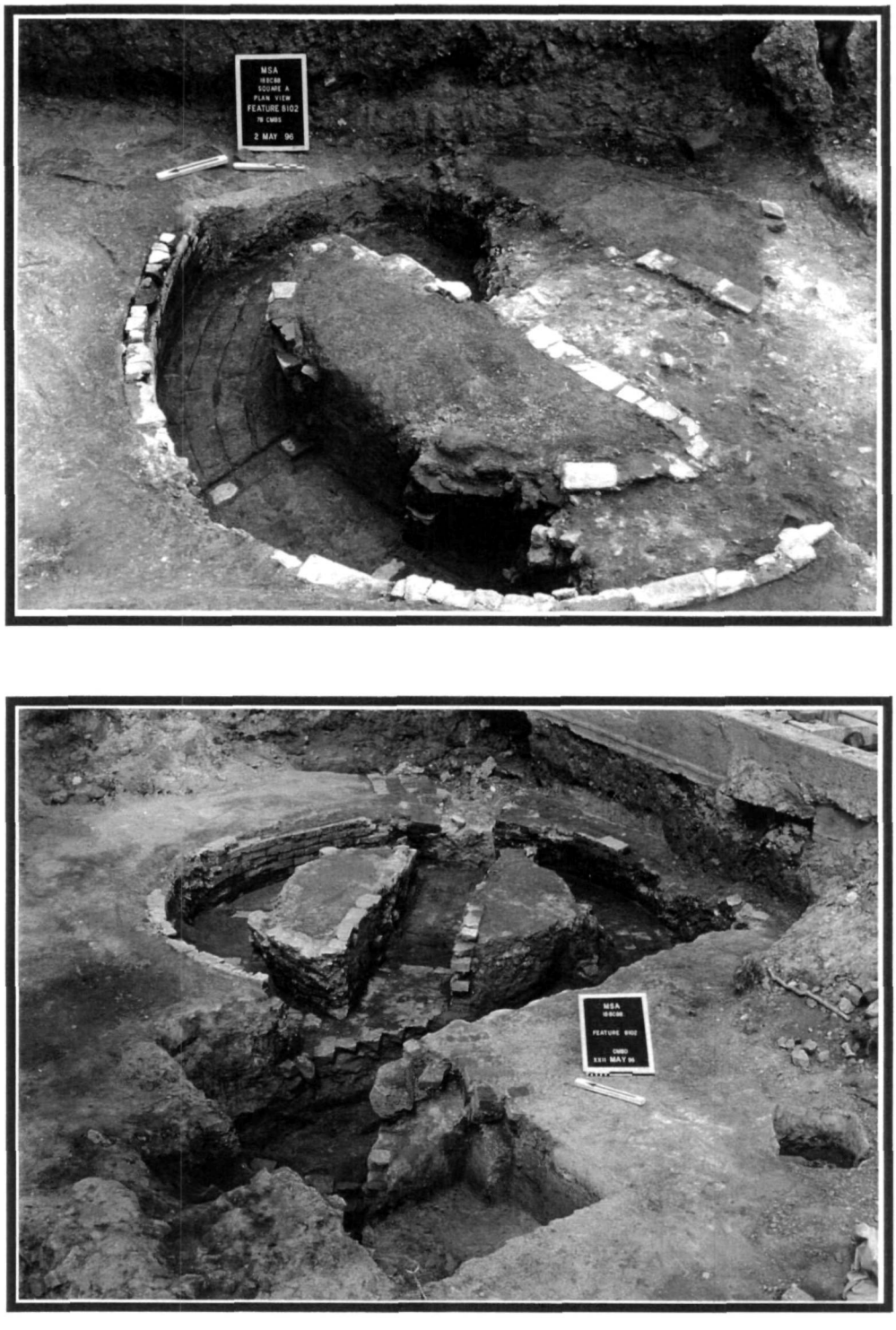


Figure 20. Photographs of the kiln base; Upper: at the beginning of current excavations; Below: at the end of current excavations

fragments of kiln furniture were catalogued in the field, and not retained. This total included 158 sagger fragments, ranging from 2 to 10 inches in diameter (Table 3). Rings, spools and coils also were present, along with patties and props in a variety of sizes and shapes.

Non-Kiln-Related Artifacts. A total of 158 of the artifacts collected from within the kiln base were not related to the operation of the kiln. This small percentage (12 per cent) of the collection included activities, architectural, clothing, furniture, industrial, kitchen, miscellaneous, and personal items as indicated in Table 4. Most of these items were present in the upper portion of the fill.

Kiln Furniture. Analysis of kiln furniture revealed nine forms in a range of sizes. These included saggers, rings, spools, coils, tacos, patties, props, and 'c's (Figure 21). The quantity of separators far outnumbered the saggers of any size. Most saggers were shallow, with base diameters larger than their height. Saggers were used for firing flatwares, and small serving wares, as well as for separating larger hollowares in the kiln. It is unclear whether the potter was producing small vessel forms. Although two fragments of molded stoneware pipe bowls have been found, the only other vessel form present small enough to have been placed inside of the saggers are small bottles, probably meant for ink or blacking. Many of these have a base diameter of less than two inches. Fragments of several small flasks were identified. Shaped from wheel thrown bottle forms, these forms would have been difficult to stack, and placing them inside of saggers would have eliminated the difficulty of stacking these odd shaped vessels. In addition, most flask fragments appear highly fired, with thick accretions of saltglaze on the exterior. Potentially these vessels were fired repeatedly.

An alternative, and more probable explanation is that the saggers were "jug saggers" intended to separate larger bottles and jugs in the kiln (Greer 1981:218). These were placed upside down over the neck and handle of jugs or bottles, and another vessel was placed on the flat top. Examination of several of the well fired saggers indicate that this may have been the preferred use: there were no visible scars on the interior of the sagger that would have resulted from contact with small vessels placed inside of the sagger. Additionally, examination of the shoulder fragments of some larger vessels, especially small necked bottles and jars indicated minute scars, and unevenly

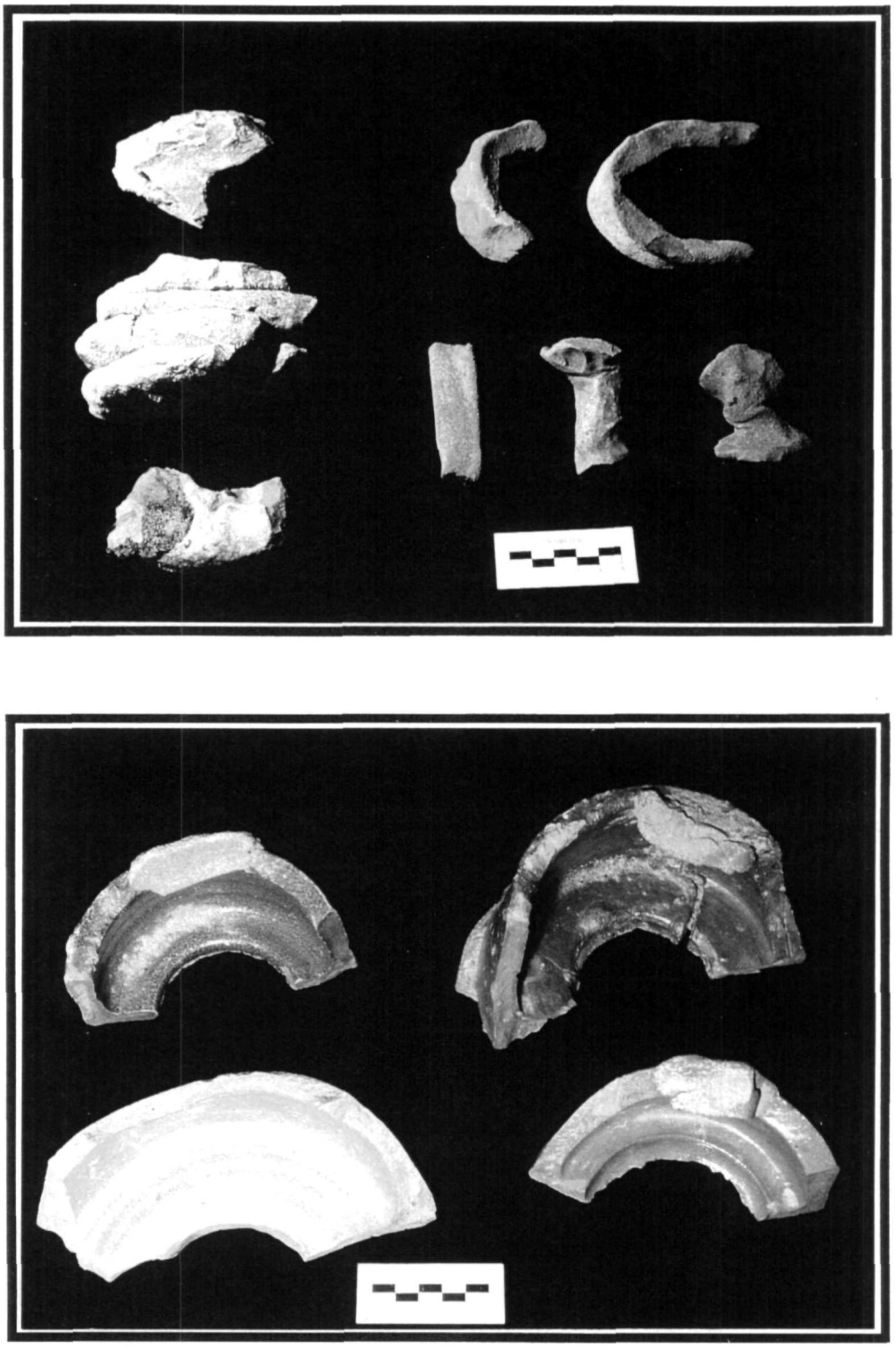


Figure 21. Photographs of examples of kiln furniture types

glazed areas where these vessels would have been in contact with the sagger. Most relatively intact sagger fragments from the Pawley kiln included a hand molded roll of clay, heavily salted and sanded, and placed between the rim of the sagger and the shoulder of the vessel (Figure 21).

The vastly larger quantity of separators may reflect the practice of firing more larger vessels such as 2 and 3 gallon crocks and jars, and fewer smaller vessels such as small bottles, pots, cups, or mugs. These vessels could be stacked in the kiln, with separators fashioned on the spot to keep them in place and to prevent the individual vessels from shifting during firing. The variety of separators included large, flattened rolls or rings, used to separate large jars; a variety of "c" shaped wads used to protect the necks of bottles (Figure 21); and spools used to separate stacks of vessels. Large rings used to separate large jars and crocks also were represented, these included both wheel thrown and hand made examples (Figure 21).

The variety of kiln furniture included one type which is less easily explained. These were necks of bottles and jugs which had been modified by piercing holes on opposite sides of the neck (Figure 21). The intended use of these pieces is unclear. They may have been separators or props, however, no specimens exhibited clear scars or marks where the top, bottom or sides came into contact with other vessels.

Vessel Wasters. A total of 435 vessel wasters were retained from the interior of the kiln base. These represented a variety of hollowares. The range of vessel forms included large storage vessels such as crocks, jars, and jugs, as well as smaller storage vessels, mainly a variety of bottles, with and without handles. Previous investigations had indicated that the potter was producing a variety of jar, bottle and crock shapes, along with a collared pitcher (Figure 22). A few pan and bowl fragments were present, along with a molded pipe bowl. Analysis of the current collection resulted in the addition of several handled bottle forms, large storage jars and jugs, and flasks. Several examples of very small bottles also were added.

After hollowares, the largest numbers of identifiable vessels were jugs (71) and bottles (70), these were followed by pitcher/jar fragments (48) and flasks (31). Smaller numbers of other forms

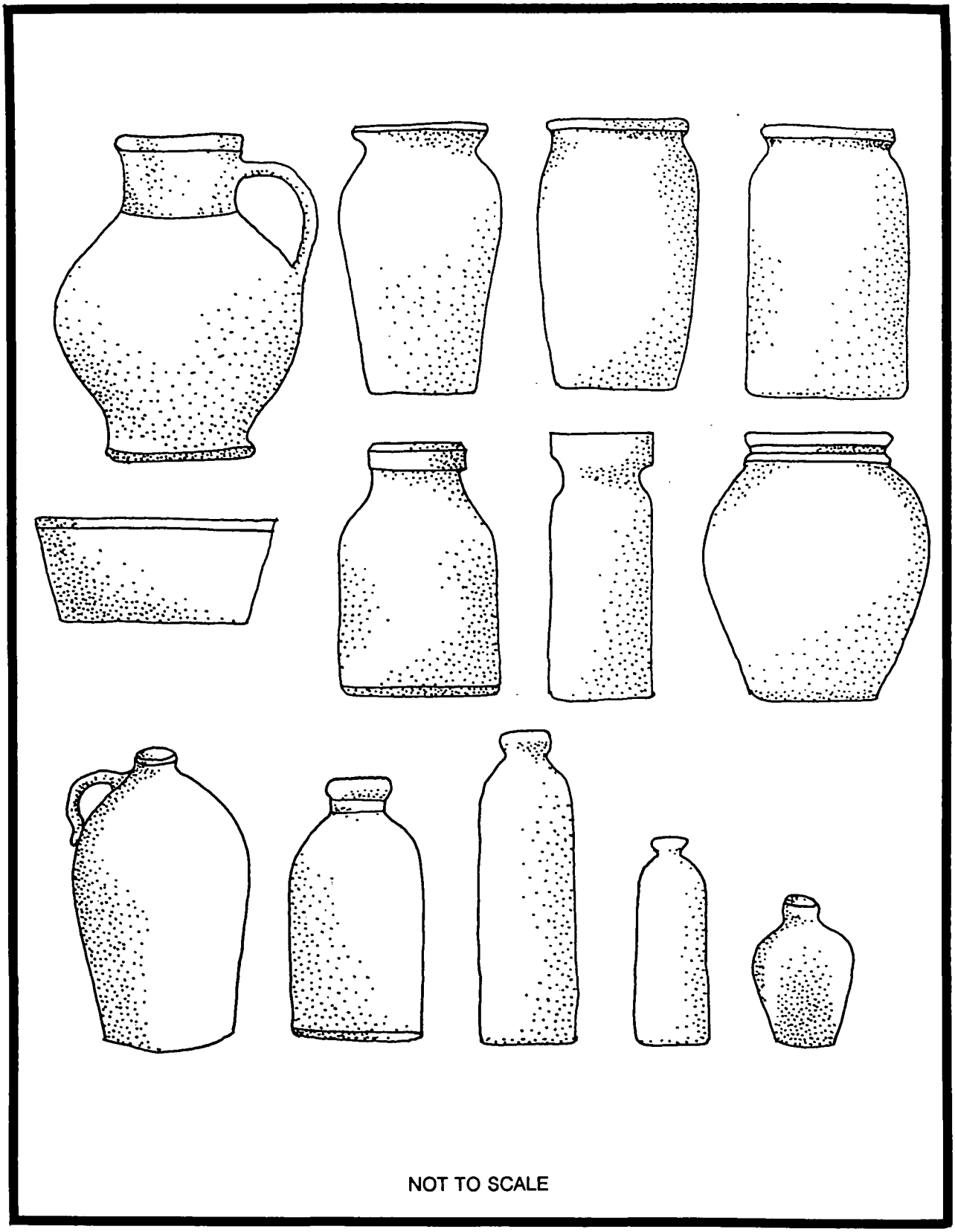


Figure 22. Drawing of Mr. Pawley's vessel shapes

included jar (21), crock/jar (13), pitcher (9), bottle/flask (7), crock lid (5), and a few fragments each identified as bottle/jar, crock, crock/jar lid, jug/mug, pan, and pitcher/bottle.

Combined Analysis

The artifacts from the current investigations, combined with those from the 1990 investigations resulted in a collection totaling 1,327 vessel wasters, and 213 fragments of kiln furniture (Table 6). The analysis of the combined collection revealed nine vessel forms and a variety of decorative techniques. When all vessel fragments were counted, the largest quantity was composed of pitcher and jar fragments, followed by generic hollowares and bottles. However when only rim fragments were used as an indicator of a minimum vessel count, then pitcher/jar and pitcher forms were most common, followed by bottles, holloware, and crock lids. If base and foot fragments were used for a minimum vessel count then generic hollowares were most numerous, followed by pitcher/jar and bottle fragments. If the general holloware designation is eliminated, and only identifiable forms are counted, then the results of minimum vessel count for bases is similar to that for rims, with the pitcher/jar form at 43 and 41 per cent, respectively.

Data from the entire collection was used to analyze manufacture techniques, form and decoration. The resulting information was analyzed and interpreted to answer the research questions proposed in the original work plan. Those questions are listed below, with the results of analysis that apply to each question.

> *What specific information about the process of stoneware manufacture can be learned from investigations related to the Kiln?*

Manufacturing Techniques

Virtually all of the wares produced by the potter(s) working for Mr. Pawley were wheel thrown. Only the two pipe bowls were molded. All vessels exhibited concentric potting lines on the interior of the vessel walls, and most were removed from the wheel using either straight or twisted wire. The lips and necks of some bottles may have been molded, however there is no evidence of

Table 6. Minimum Vessel Count for Total Collection

VESSEL FORM	TOTAL		RIM		BASE	
	#	%	#	%	#	%
Pitcher/Jar	658	49.68	42	41.58	31	18.57
Bottle	193	14.54	23	22.78	14	8.39
Bottle/Flask	7	0.52			2	1.19
Bottle/Jar	1	0.07				
Bowl/Pan	1	0.07	1	0.99		
Crock	10	0.75				
Crock Lid	6	0.45	6	. . 5.94		
Crock/Jar	36	2.71	1	0.99	4	2.39
Crock/Jar Lid	2	0.15				
Flask	34	2.60			1	0.60
Holloware	218	16.42	8	7.92	108	64.68
Jar	41	3.08	9	8.91	4	2.39
Jar/Pan	1	0.07			1	0.60
Jug	71	0.14				
Jug/Jar	1	0.60				
Jug/Mug	2	0.14				
Lid	8	0.60				
Mug	2	0.14				
Pan	8	0.60	3	2.97	2	1.19
Pipe	2	0.14				
Pitcher	22	1.65	8	7.92		
Pitcher/Bottle	3	0.22				
Pitcher/Jar						
TOTAL	1,327	100.0	101	100.0	167	100.0

this remaining on the vessels. This process required several steps, which began with the weighing and separating the clay into balls appropriate to the size of the vessel. This usually was done by an apprentice. Wheel throwing consisted of several steps; centering, opening, pulling and finishing. Centering was simply placing the ball of clay in the center of the wheel; opening was done either by hand, placing thumbs or fingers in the center of the ball and working outward, or using a ball-opener, a wooden device attached by an arm to the wheel that would accomplish the same purpose for larger vessels (Greer 1981:48-49). Opening created a shallow bowl shape from which the vessel could be formed. It is not clear from the vessel wasters whether the potter(s) at the Pawley kiln used either one or both. However, on smaller vessels it appears that the manual method was preferred. This was evidenced by a distinct line around the inside of the base of the bottle marking the final revolution of the thumb or finger.

The vessel was formed by drawing the vessel walls up from the base. In the case of the Pawley potters, 'ribs' were used to smooth out any potting lines on the exterior of the vessel. Shoulders, necks and lips or rims on bottles or other closed vessels were formed on the wheel either at the same time as the remainder of the vessel or in a separate step. Incised lines may have been added at this time either as decoration or to mark the locations of handles. The potter probably had templates for the shapes of lips, necks and rims, that produced a uniform shape when placed against the vessel as it revolved on the wheel, like the 'ribs' used to remove potting marks from the exterior of the vessel. Handles either were "drawn" into long strands, cut to the appropriate length and applied to the vessel, or they were lug handles attached to the shoulder of crocks or jars. Occasionally these tasks probably were completed by an apprentice (Greer 1981:49).

There were alternative methods of forming the vessels, generally used for storage jars with a capacity larger than 5 gallons. These included forming the base and sides separately, and then joining them, called 'topping' (Greer 1981:50), or forming the base separately, and adding the sides in several sections, allowing drying time for each section. These was no evidence that either of these methods was used by the Pawley potter(s).

Finally, the vessel was separated from the wheel using a plain or twisted wire, and then removed either by hand or using wooden lifters that fit around and stabilized the base of the vessel. Evidence from the wasters indicated that both flat and twisted wires were used by the Pawley potter(s) to remove vessels from the wheels. A slight indentation around the base of larger vessels also reflected the use of lifters to move the finished vessels.

Form

Bases. All of the vessels had flat bases, that exhibited markings either from straight or twisted wires used to separate them from the potters wheel. The exception was flasks that had been formed from basic bottle shapes. The round bottle shape was thrown first, then the base of the bottle was pressed between the potter's palm and fingers to form the crescent shape of the flask bottom. This produced an irregular indentation in the base, similar to the kick on a glass bottle (Figure 23).

Handles. Two types of handles were used: drawn strap handles, and applied cupped handles. Pitchers and mugs, generally classed as serving wares, had applied strap handles. These were drawn from separate clays, and applied to the preformed bottle pitcher or bottle. Pitcher handles were attached just below the rim, and at the widest point of the shoulder of the vessel. Mug handles were attached below the rim, and below the midpoint of the side of the vessel. Bottle and jug handles were much smaller, and attached to neck just below the lip, and at the shoulder. Crocks and jars had crescent-shaped cupped handles attached at the point of the shoulder.

Necks. Bottle necks were either straight, rolled or collared (Figure 24). Straight necks were catalogued as rims, rolled or collared necks were catalogued as lips. There appeared to be no correlation between bottle size and neck type; all rim or lip forms were present on all sizes of bottles. The exception was in flasks. All of the examples of this bottle form had collared rims.

Jars and crocks exhibited a similar form of flattened rim that rose only slightly above the shoulder of the vessel (Figure 24). There were two variations on this form, the first was a simple rim, the other included a collar or band just below the rim of the vessel. Both were meant for use with

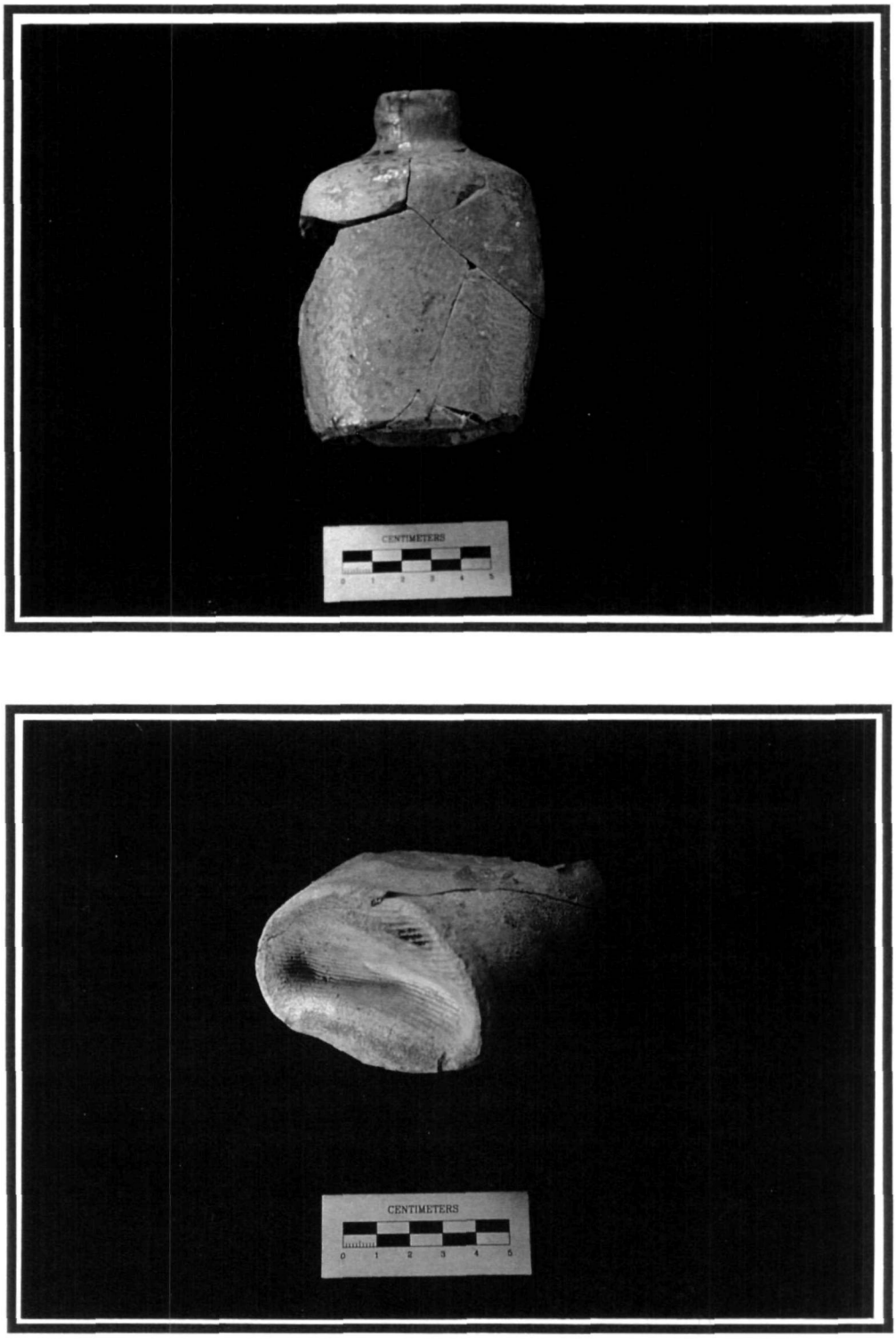


Figure 23. Photographs of the base of a flask, showing the modification of the basic bottle shape

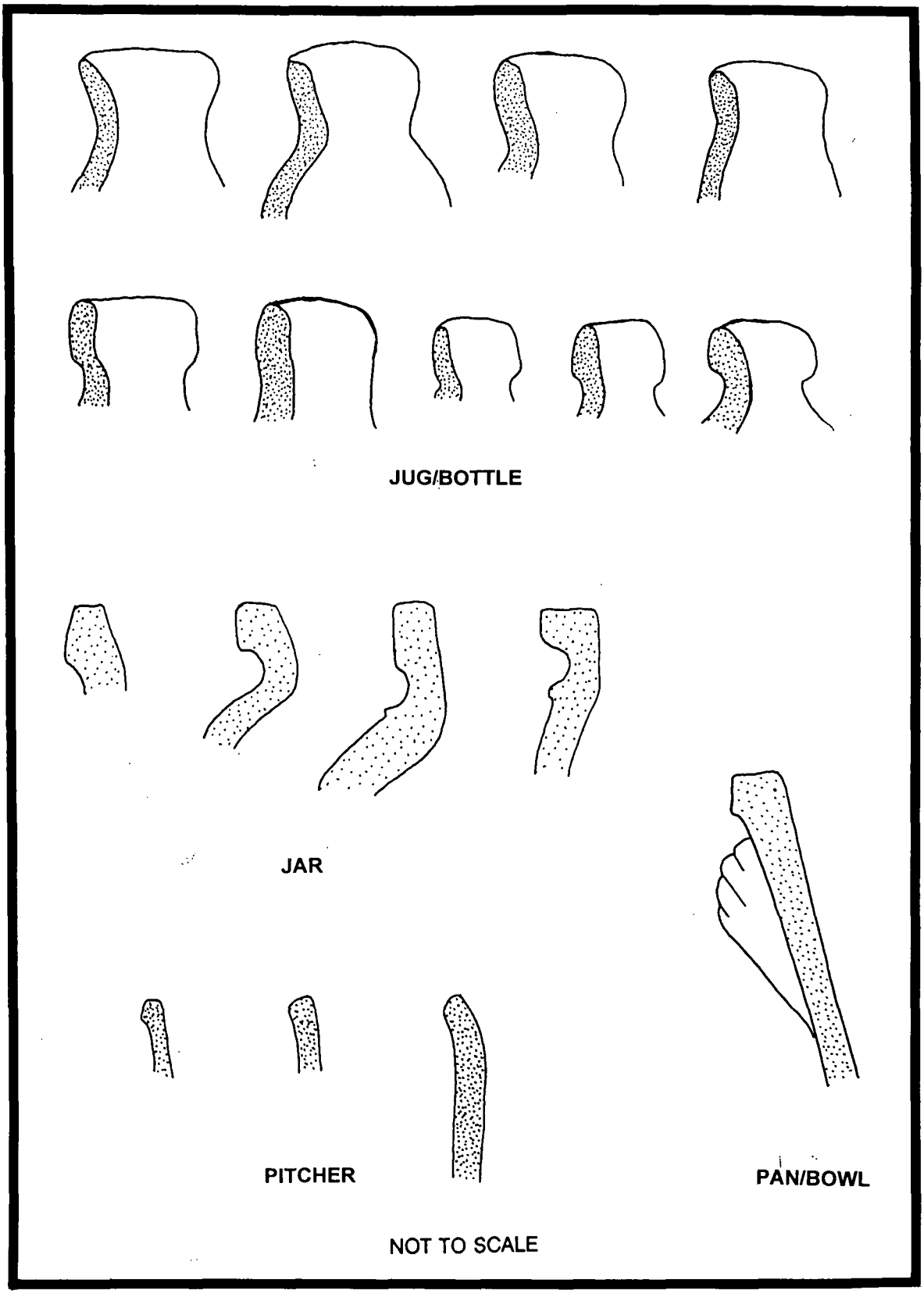


Figure 24. Drawing of representative rim profiles from the Pawley assemblage

a separate lid. The few examples of pan or bowl rims were wide and straight, or with only a slight roll or band.

Lids. Crock and jar lids were individually turned, and included a substantial footring. These had either flat or cupped knob handles. The lids were meant to rest on the jar or crock rim, with the footring fitted inside of the mouth of the jar.

Decoration. In general, decoration on stoneware vessels included a variety of combinations of incised and applied designs. These were replaced gradually by the makers mark stamped or stencilled on the vessel. Incised lines were added while the vessel was still on the wheel; stamped makers marks or capacity marks were added when the vessel was leather hard, as was any change to the vessel's shape, or the addition of appliques; and, stencilling or brushing with cobalt or other glaze was done when the vessel was hard. Markings usually included a capacity mark, either incised or stencilled, that indicated the size of the vessel in gallons. Most often these were arabic or roman numerals, but occasionally groups of geometric symbols were used to mark the capacity: two or three squares, hearts, etc. (Greer 1981: 158).

Only incised gallon markings, probably with a metal stamp, were noted on wares from the Pawley kiln. Makers marks also could be either stamped, incised, or painted on the vessels. No makers' marks were identified on the wares from the Pawley kiln. This absence may be due to the early time frame for the operation of the kiln. Makers marks were more popular later in the nineteenth century, when more local competition created a desire to distinguish one potter's wares from another's. Considering that several potters were in operation in Baltimore during the time frame in which Mr. Pawley's was in operation, it seems unusual that the potter did not use some kind of a mark. However, although many shoulder and base portions of vessels were present, the usual locations of stamped potters marks, no whole examples of larger holloware vessels were present, and possibly the pots were marked on some other portion of the vessel.

Decoration generally was achieved either through incision, applique or sprig molding, painting, or any combination of these. Slip dipping and painting also were popular decorative finishes. Trailed or brushed decorations usually were achieved using solutions of metal oxides:

cobalt for blues; copper for greens; manganese for purples; iron for browns. White clays or kaolin were used for white. Many potters used a combination of incised, and painted or slipped decoration.

Previous analysis of decorative techniques had indicated that the potters at the Pawley kiln were using a basic floral decoration on all large vessels, including pans, jars, crocks and pitchers. Current analysis has shown that some larger bottle forms also were decorated with a debased form of the tulip motif that either was hastily applied or intentionally simplified.

The few fragments of pans or bowls present included some portion of the cobalt tulip motif on the exterior. Small and medium size bottles, with a base diameter less than 3 inches, did not have decoration. Flasks did not have decoration. Some larger bottles were present that included debased or simplified tulip or floral decoration. Pitchers included tulip motif on the body of the vessel, which sometimes was combined with a simple rim decoration (Figure 25). These most typically were swags or waves just below the rim (Figure 25). Some pitcher forms also included feather, leaf, dashed or dotted patterns around the collar (Figure 25). Jars were present in up to 3 gallon sizes. These included tulip motifs on opposite sides of the body (Figure 26), which occasionally were combined with incised, parallel lines running around the shoulder of the jar, below the neck. Both pitchers and jars included cobalt decoration on the body of the vessel, around the top and base of the handle; some handles included cobalt lines. One large jug included random patches of cobalt on the body of the jug (Figure 27); these may have been intentional decoration, or may have resulted from accidents in the firing process. Crock and jar lids included a variety of decorations formed from various combinations of swags, waves, parallel lines, and dashes (Figure 28). Some included incised, concentric circles inside of the rim decoration.

Glaze. Five general types of glazing were used most frequently by American stoneware potters: salt glaze, slips, alkaline, ash, and Bristol (Greer 1981:179). Salt and alkaline or lead produced a clear glaze; slips usually were liquefied clays that produced a desired color when fired; alkaline glazes were a combination of wood ash, sand and clay into which vessels were dipped. This produced a shiny, hard surface, and was relatively inexpensive. Bristol glazing was the production

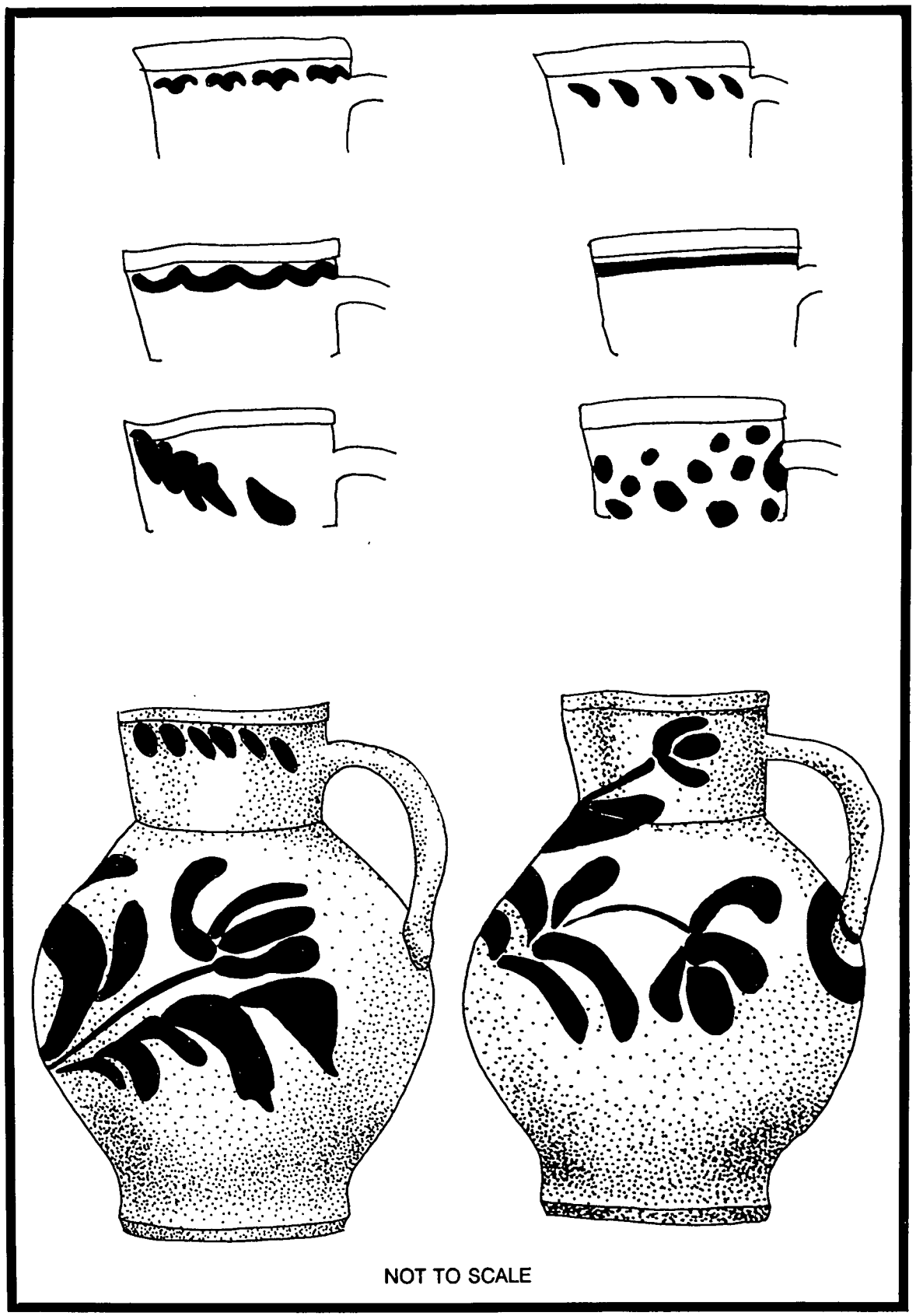


Figure 25. Drawing of reconstructed pitcher decorations from the Pawley assemblage

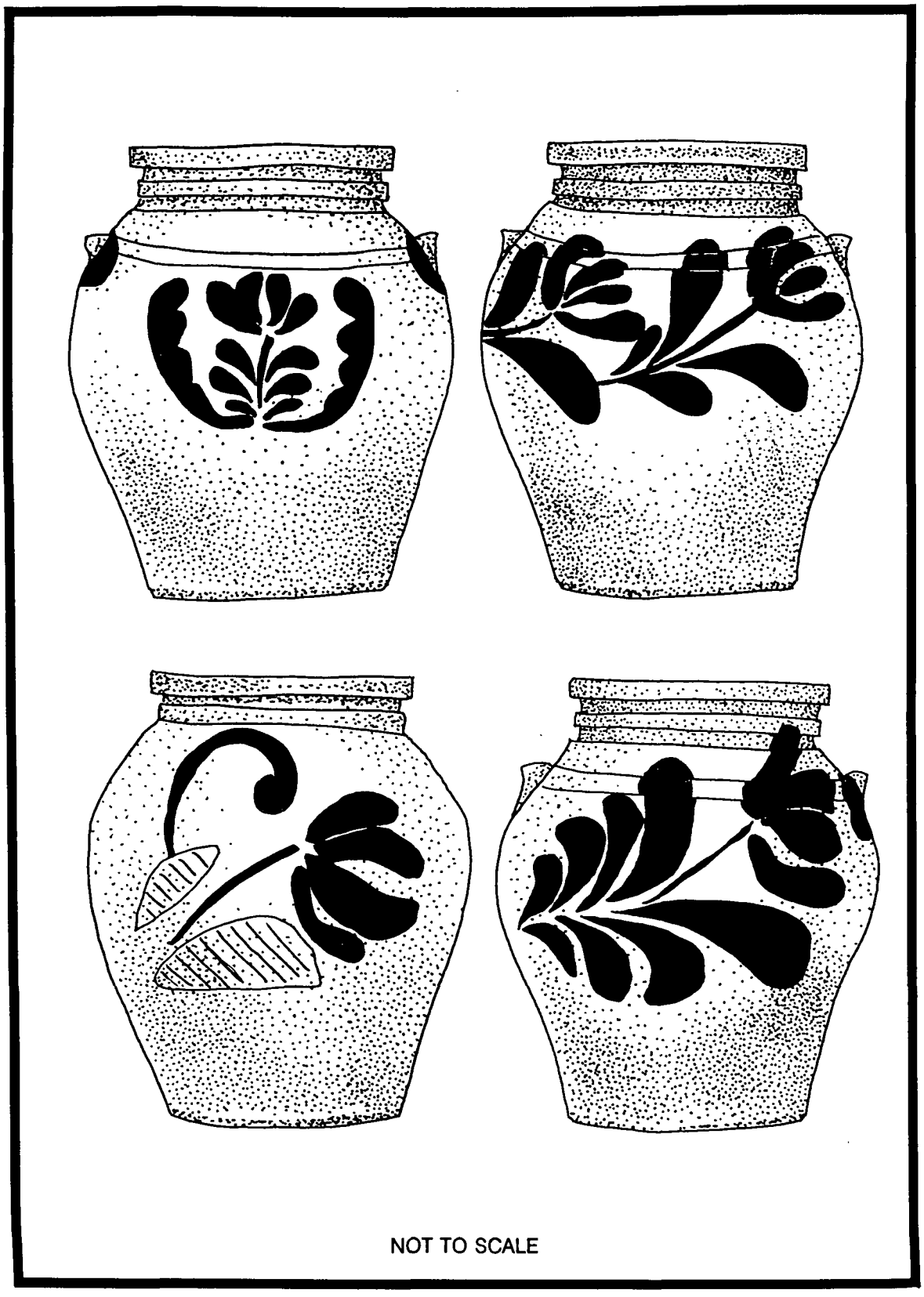


Figure 26. Drawing of reconstructed crock and jar decorations from the Pawley assemblage

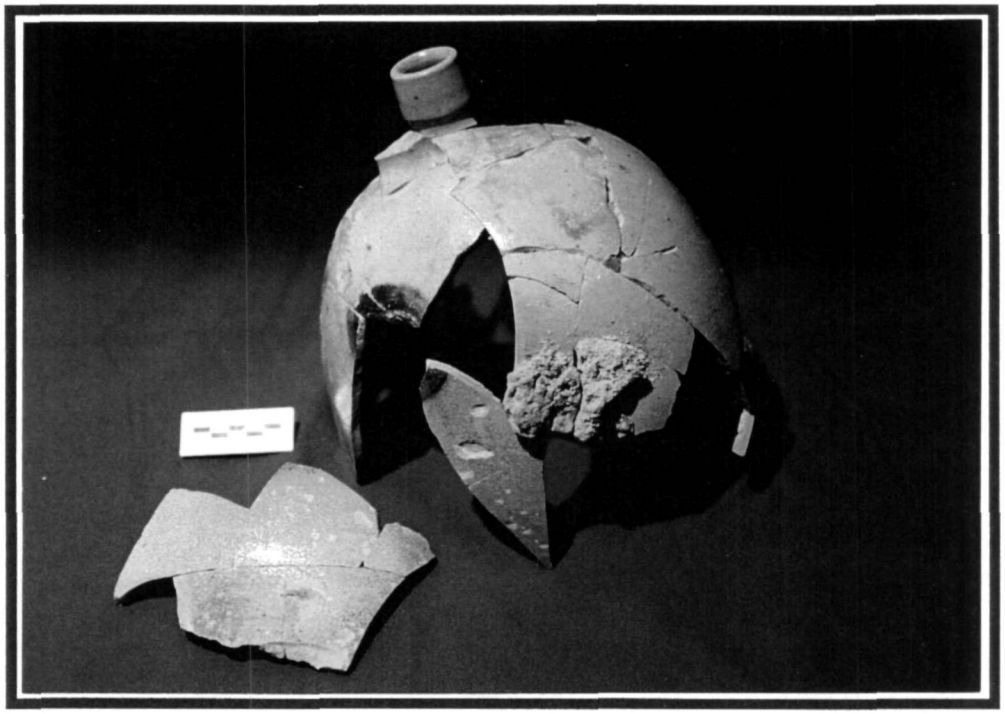


Figure 27. Photograph of an example of a two gallon jug from the Pawley assemblage

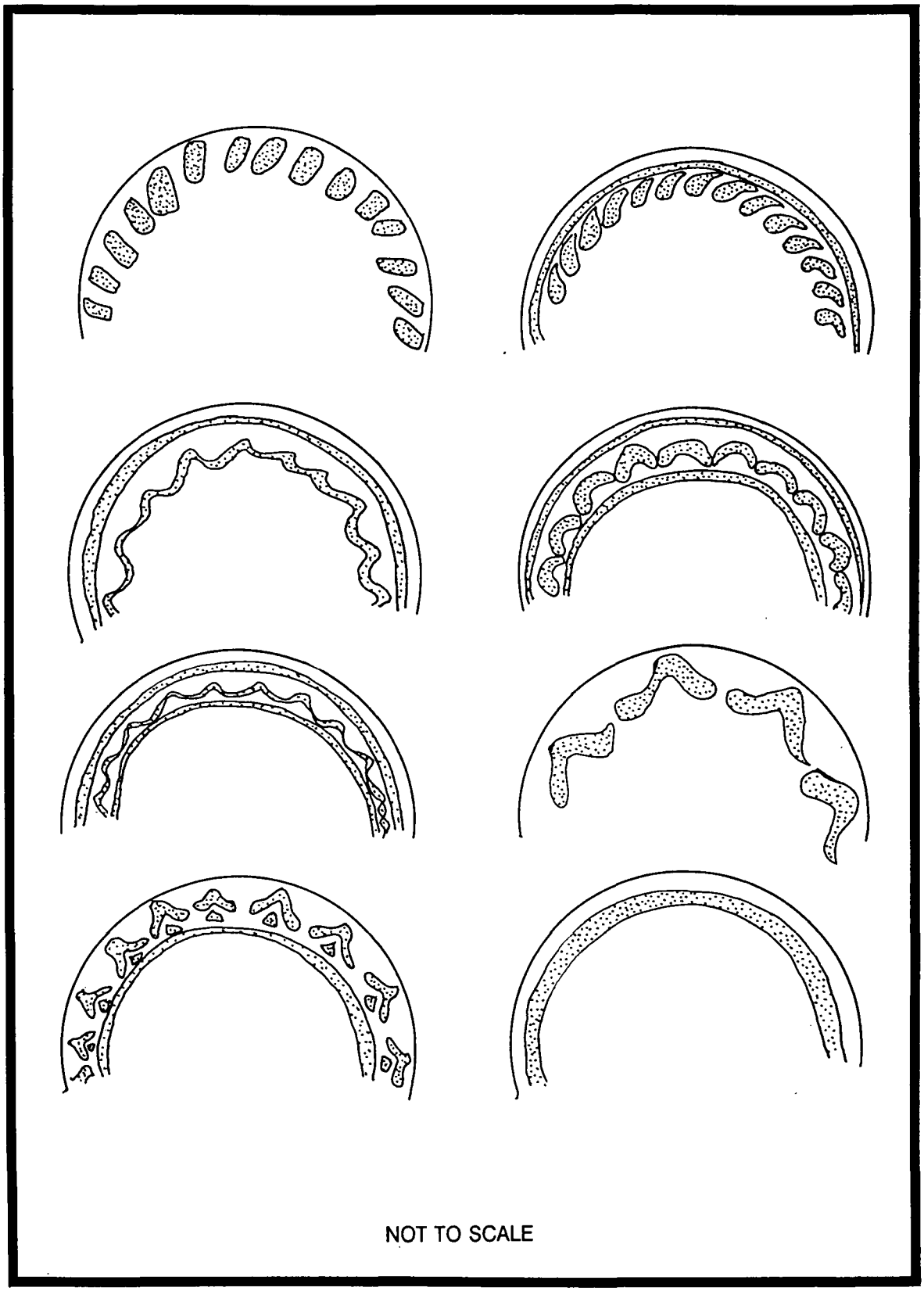


Figure 28. Drawing or reconstructed crock or jar lid decorations from the Pawley assemblage

of a ceramic slip in which the vessel was dipped to produce an opaque white glaze (Greer 1981:210).

The most prevalent form of glazing for vessels from the Pawley kiln was salt glazing, at least on the exterior of the vessel. The interior of pitchers was heavily glazed, flasks were either heavily glazed or treated with a brown slip and some form of lead or alkaline glaze that produced a smooth, high gloss surface. Many jugs and jars were treated with iron oxide on the interior, and salt glazed on the exterior; some included a slipped interior, cobalt tulips and saltglaze on the exterior. The potters marked the capacity of the larger vessels with stamped arabic numbers on the shoulder of the vessel, just below the handle. Examples of these markings were found in a two gallon jug and a three gallon jar (Figure 29).

The potters working at the Pawley kiln did not use slips under or instead of exterior glazes, although some vessels appear to have a slip or wash on the interior. The interior of some bottles was unglazed. The interior of pitchers was glazed, sometimes with a smooth, glossy lead-like finish. Jar were both glazed and unglazed on the interior, and may or may not have had a wash or slip on the interior. Crock and pan or bowl forms (those forms with wide openings) were saltglazed on the interior. Exterior treatments were confined to incised or painted or trailed decorations, with no attempts at dipping or slipping all or portions of the exterior.

How do the specific vessel forms and decorations manufactured at this kiln compare to vessels manufactured by other Baltimore stoneware potters?

The Pawley kiln was producing jars, pitchers, jugs, bottles, and flasks. Archival research revealed no indication of advertising, so Mr. Pawley must have been producing his stonewares for a specific market, and concentrating on a specific range of vessel types. This range consisted of jars, pitchers, jugs, bottles, and flasks. Similarly, the Parr pottery, also operating in Baltimore during the same time frame, listed pint to eight gallon crocks, spouted pitchers, and water coolers. Unfortunately no documentation was available for comparison of form and decoration.

The Wilkes Street Pottery in Alexandria, Va., which operated from 1813 to 1876, and, which during the time of operation of the Pawley kiln, was under the ownership of Hugh Smith, produced

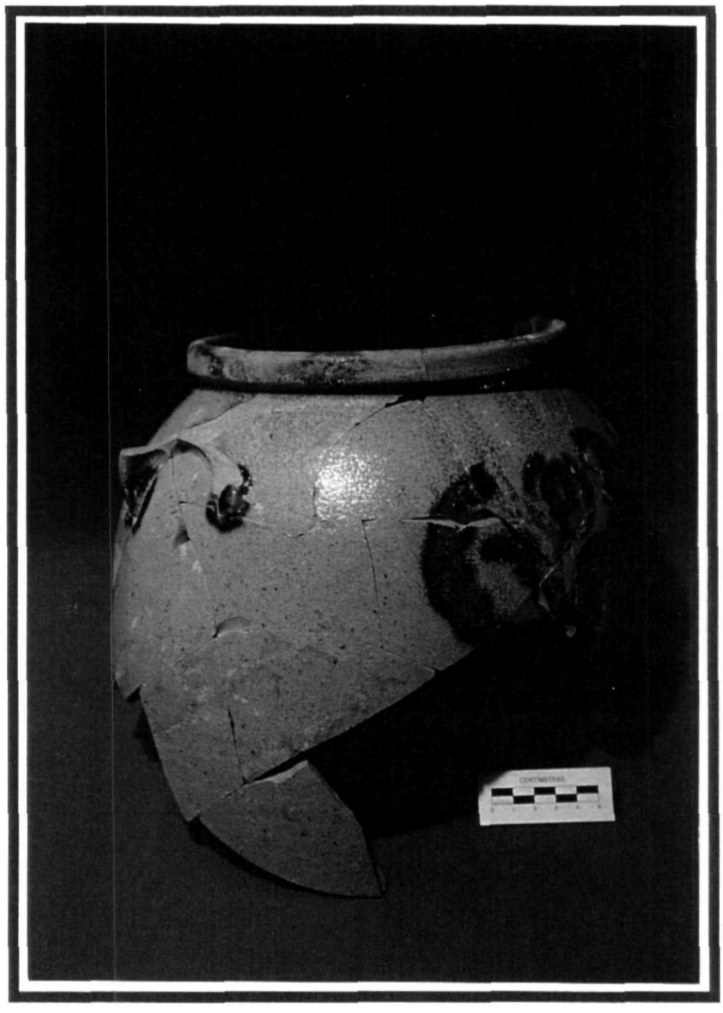
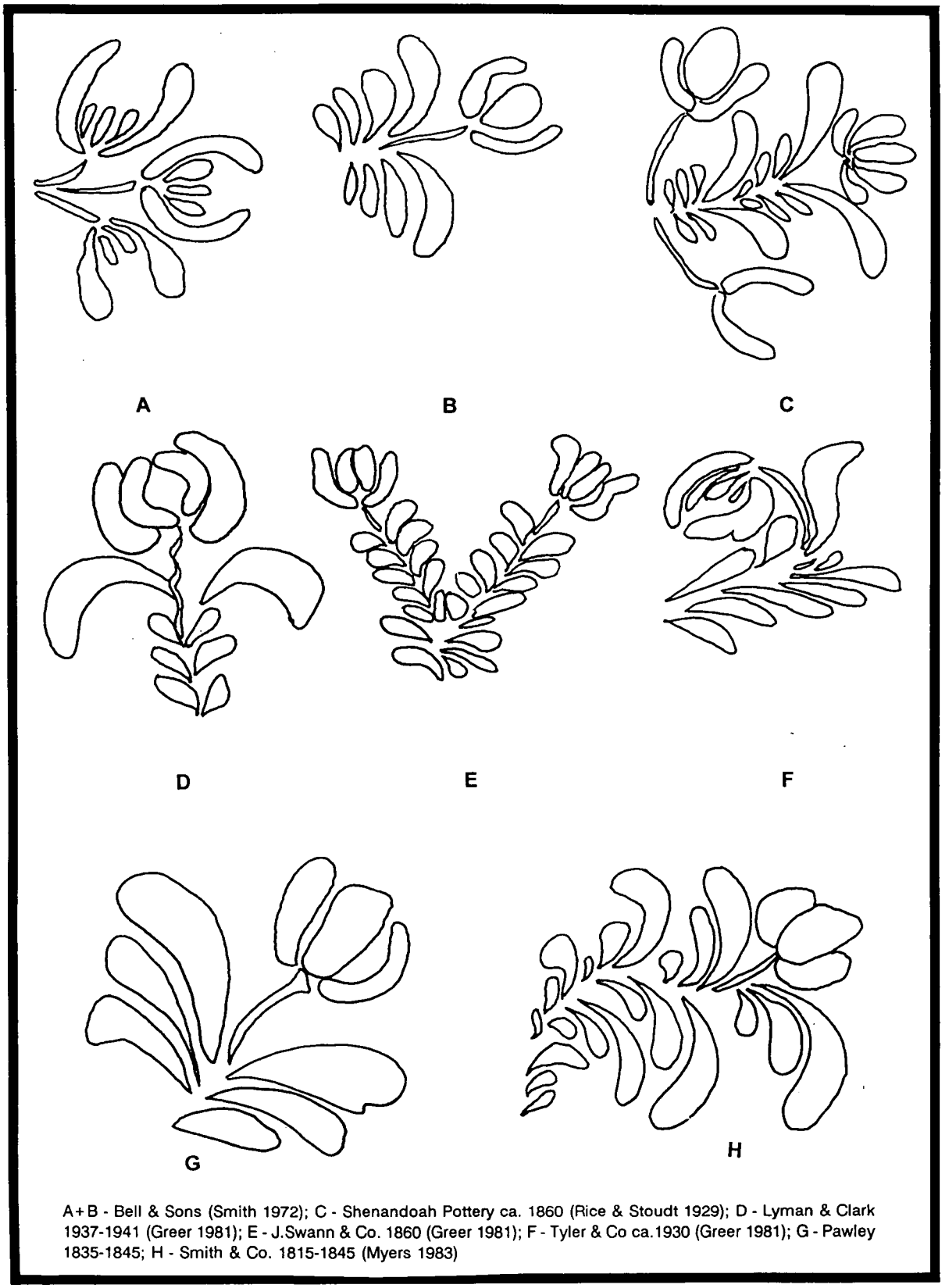


Figure 29. Photograph of an example of a three gallon jar from the Pawley assemblage

comparable wares for a similar market. Like Mr. Pawley, Hugh Smith and his son Charles were prominent china merchants who hired potters to produce utilitarian vessels to complement their imported wares (Myers 1983:14). The Pottery supplied the Washington D.C. area, as well as the surrounding area as far as Leesburg, Warrenton and Winchester. During this period, the Wilkes Street pottery produced jugs, jars, pitchers, milk pans,churns, chamber pots, butter jars, spittoons, water coolers, and banks. Jug, jar, crock and pan forms were similar to those produced at the Pawley kiln. Like Mr Pawley's jugs, Mr Smith's were ovoid with narrow neck and small rim, a single strap handle attached at the shoulder, and no intentional decoration, although drips and runs in the kiln did occur (Figure 29)(Meyers 1983:59). It is assumed that Mr. Pawley's potter(s) produced these jugs in a variety of sizes, although only a 2 gallon example was clearly marked. Jars from the Pawley kiln had straighter sides and more prominent shoulders than those from the Smith operation. The Pawley jugs were more similar to the jars produced after 1845 by the Alexandria pottery under the direction of Mr. Milburn. Smith's jars had simple rounded rims, while Mr. Pawley's jars had more elaborate molded and reeded neck decoration, both had flared lug handles. Smith's jars were decorated with elaborate scrolled flowers and a stamped mark. Mr. Pawley's had a similar floral decoration, with less elaborate leaves and vines, and more pronounced flowers (Figure 30). No mark, other than a stamped capacity mark, was visible on Mr. Pawley's jars. Milk pans had a similar shape from both potteries, although those from the Wilkes Street operation were decorated with elaborate swags and tassels; those from the Pawley kiln were decorated with a simplified tulip motif.

Mr. Pawley's pitchers had a straight collar, with a narrow spout and a rounded, bulbous body (Figure 22). The shoulder, where the neck joined the body of the pitcher, was molded or reeded with several lines. Pitchers from the Wilkes Street operation were described as having a flared neck, with straight-necked examples before 1825 (Myers 1983:41)(Appendix IV). Pitcher decoration during Mr. Smith's ownership of the Wilkes Street pottery was described as "an elaborate scroll-like vine decoration" (Myers 1983:41)(Appendix IV). During the earlier period, when Mr. Swann operated the pottery, pitcher decoration was described as a series of graduated leaves flanking the



A+B - Bell & Sons (Smith 1972); C - Shenandoah Pottery ca. 1860 (Rice & Stoudt 1929); D - Lyman & Clark 1937-1941 (Greer 1981); E - J.Swann & Co. 1860 (Greer 1981); F - Tyler & Co ca.1930 (Greer 1981); G - Pawley 1835-1845; H - Smith & Co. 1815-1845 (Myers 1983)

Figure 30. Drawing of comparative floral motifs

pitcher spout. The pitchers from the Pawley kiln included a number of variations of the leaf and feather motif around the spout, combined with elaborate tulip and floral design around the shoulder of the bulbous body of the pitcher (Figure 25).

The Wilkes Street pottery apparently did not make bottles, either with or without handles, but focused on larger utilitarian hollowares. The bottles from the Pawley kiln were made in a variety of small forms meant for beer, ale, ginger beer, ink, blacking, and other liquids. Some specimens from the Pawley collection included small jug-like handles placed on the shoulder, and extending between the neck and the widest point of the shoulder. One example included brushed cobalt decoration around the base of the handle.

The collection from the Pawley kiln did not include water jars, churns, or spittoons, although these items were produced by most of the other potters in the region. These vessels tended to be large, more that 3 or 4 gallons; it is possible that the Pawley operation was not large enough, with only a single beehive kiln, to economically produce these larger vessel forms. This also may account for the larger numbers of smaller bottle and flask forms present in the Pawley assemblage. Alternatively, Mr. Pawley's potters may have been producing bottles for a specific market, such as brewers or bottlers in Baltimore. Overall, the form of vessels produced by the Pawley potters was more similar to those produced at a slightly earlier period by the potters at the Wilkes Street operation. Only the jar form resembles the later Wilkes form, during the Milburn period after 1845 (Appendix IV). The pitcher and jug forms are more similar to those from Swann's potters dated between 1815 and 1825.

Vessel decoration exhibited a wide range of similarity and difference. Many of the general motifs are similar: the Smith's floral decoration on jars and crocks is similar in general form to the Pawley tulips, but differs in some details. Mr. Pawley's leaves and stems are more broadly drawn, and his tulips are larger in proportion to the leaf and stem portion of the motif (Figure 30). Mr Pawley's motif emphasizes the flower, while the Smith decorations emphasize elaborate leaf patterns. Both used similar swag and wave patterns, but those from the Pawley operation remained simple geometric patterns, while some of those from Smith's operation were elaborate combinations

of swags or waves, dots, and tassels (Appendix IV). Later decorations, during the Milburn ownership of the Alexandria pottery, had developed into simplified, graphic representations of the same floral motifs (Appendix IV). Where the Pawley vessels exhibited simple circles of cobalt at handle terminals, Mr. Smith's vessels had elaborate tassels extending from the handle terminals (Appendix IV). Like his vessel forms, Mr. Pawley's potter appears to have preferred simpler, cleaner vessel decoration than did the potters at the Wilkes Street operation. These preferences may have been a holdover of earlier fashions and trends in stoneware manufacture.

The Shenandoah Pottery in Strasburg, Va. also was producing jars, butter jars, churns, water coolers, milk pans at about the same time (Figure 31). The Shenandoah operation had a direct connection to Baltimore, through George H. Davidson, and his son George S. Davidson, who worked for Mr. Sonner (owner of the Shenandoah Pottery) between 1870 and 1892 (Rice and Stoudt 1929:79). George H. Davidson is listed as a stoneware potter from 1832 to 1851. A Robert Davidson also is listed for the years between 1832 and 1850, and again in partnership with Brotherton (1837-1842), and James Parr (ca. 1850)(Pearce 1959:84). It is not clear whether these are the same people, but Mr. Davidson could easily have worked in Baltimore in the 1840s, 50s, and 60s before moving on to Strasburg in the 1870s. Mr. Sonner, Sr. lists jars and pitchers in sizes ranging from 1/4-3 gallons; covered butter jars in 1-4 gallon sizes; 3-6 gallon churns and water coolers; air tight jars, 1/2 - 1 1/2 gallon high and low crocks 1/4-6 gallon jugs; water coolers, milk pans in 1/2- 2 gallon sized; 1/2 and 1 gallon chamber pots, spittoons, and pitchers. When Mr. Sonner, Jr. took over the business, after 1883, the larger sizes of jars, butter jars, churns and water coolers were eliminated from the price lists (Rice and Stoudt 1923:80). Again this variety is very similar to the vessel types produced by the Pawley operation, with the same exceptions as for the Wilkes Street potters, the absence of small bottles in the Sonner listing, and the absence of large vessels such as water coolers and churns from the Pawley assemblage.

Vessel forms were similar to those from the Pawley kiln, with a larger range of pitcher sizes with both straight and flared collars. Crocks and jars included a rim form similar to that on the Pawley crocks, as well as a wider, straight-necked form meant for carrying a recessed lid, similar

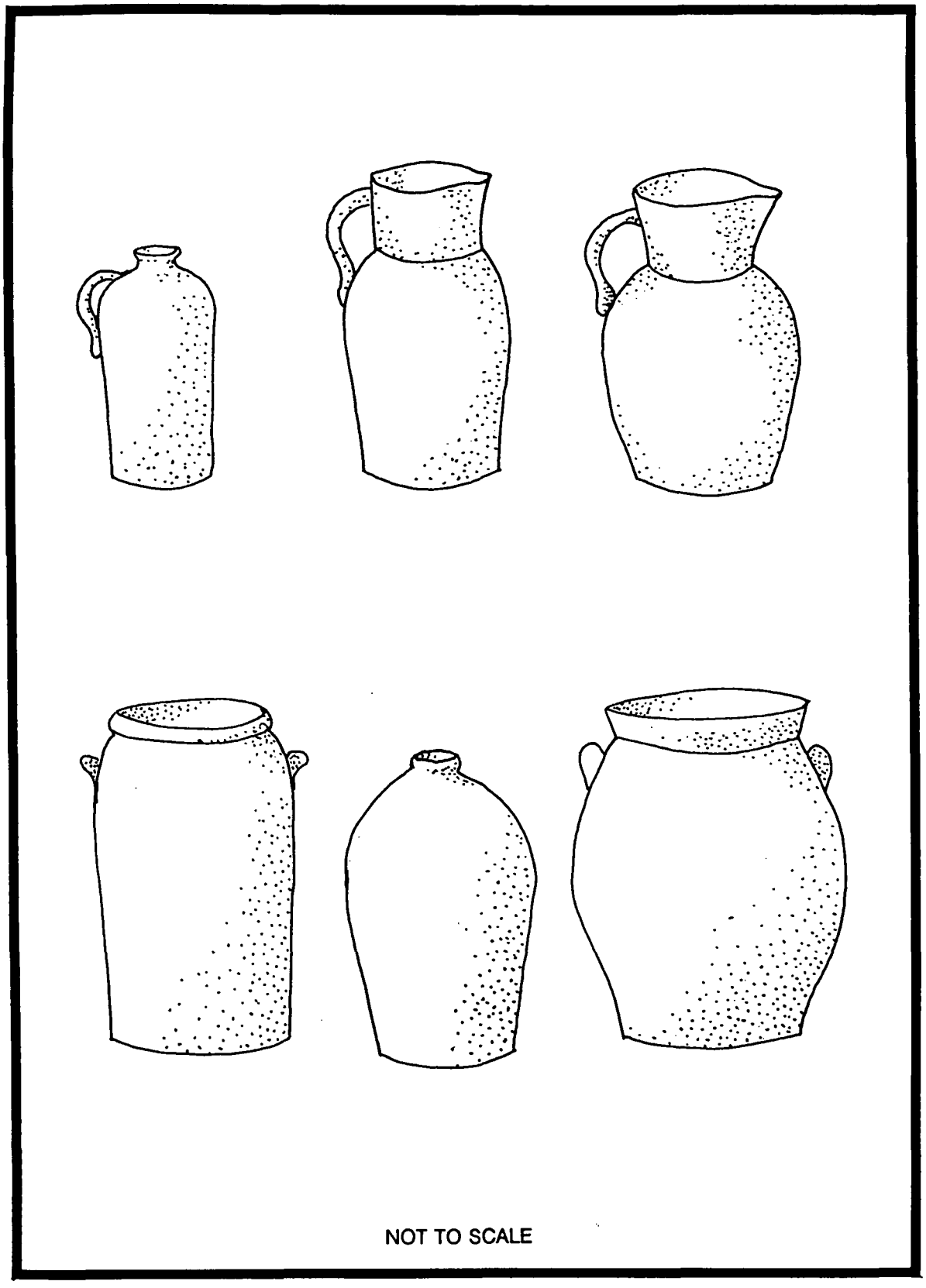


Figure 31. Drawing of comparative vessel forms from the Shenandoah Pottery (from Rice and Stoudt 1923)

to that for a churn. The Sonner pottery produced a wide range of sizes of both pitchers and jars, as evidenced by their price lists. They also produced a wide range of sizes of both handled and straight bottles and pots meant for food storage. The potters at the Sonner operation were producing a large, handled bottle similar to the one example present in the Pawley assemblage. These probably were meant for beer or ale.

Overall the decorations on the Shenandoah vessels included floral motifs on crocks and pitchers, similar to those used by Pawley and the Wilkes Street potters. Pitchers exhibited a simplified floral motif, probably based on a tulip, that included an inverted flower beneath the base of the handle, framed by a pair of swags or leaves (Figure 30). Crocks and jars were decorated with a combination of swags and tassles, and floral motifs, reminiscent of the later products of the Wilkes Street operation under Mr. Milburn (Appendix IV). Sonner's crocks included a floral motif similar to that used by other potters, that features three flowers on a single, central stem (Figure 31). Their crocks also featured what appears to be a clover pattern (Figure 31), combined with swags and tassles. Some of the smaller crocks or pots included simplified swag and tassel decoration as well. Examples of vessel forms from the Shenandoah pottery also include what appears to be a flask form, similar to that produced by Mr. Pawley.

Summary

Mr. Pawley, a Baltimore china merchant, owned a pottery kiln at the corner of Russell and Cross Streets. Between 1835 and 1850 he, or more likely one or more hired potters, produced utilitarian stoneware vessels for sale in his retail or wholesale outlets. Mr. Pawley did not advertise, and no primary documentation has been found, so it is assumed that Mr. Pawley had an established market, possibly through the use of business directories, for both his imported wares, and the products of the Russell Street kiln. In a scenario typical for the time period, the wares produced at the kiln were basic utilitarian vessels meant for food production and storage. These forms probably complemented the more refined creamware, pearlware, and whiteware table and serving wares he imported from England, or other European ceramics centers. Although Pawley's son and

grandson continued to operate the import business until the end of the century, their production of utilitarian wares appeared to cease in the 1850s. This may have been in response to the pressures of increased mechanization of larger potteries such as Mauldin Perine and Bennett; or the increased availability of alternative and cheaper storage vessels that included the tin can, and glass bottles.

The potter(s) at the Pawley kiln were producing jars, pitchers, jugs, bottles and flasks in a variety of sizes (Figure 32). The widest variety appears to have been in bottle sizes. These may have been intended for a range of liquids from beer, ale, and ginger beer, to ink and blacking. The intended use of the specialized flask-type bottle is not known, but it may have been intended for some form of liquor. The potters also produced larger forms of jugs for storage of liquids, and jars and crocks for prepared food storage. Some milk pan or butter pot forms were noted, although these were a minority. These forms represent direct food processing, more than storage. Pitchers seem to have been an important part of Mr. Pawley's inventory. These bulbous, collared vessels were used for service of beverages, and often included elaborate floral decoration.

Mr. Pawley's operation did not seem to produce the larger forms of vessels; crocks and jars larger than 4 or 5 gallons, large water jars, or churns. The absence of these forms may have been the result either of the size of the operation, or the market for which these utilitarian wares were produced. In an urban market in which processed foods were more and more readily available, there may not have been a need for the larger sizes of preparation and especially storage vessels that would be required in a more rural setting, such as those advertised by the Shenandoah Pottery.

An unusual aspect of the products of the Pawley kiln was their apparent perpetuation of earlier shapes and forms and decorations that were slightly more refined than those of larger utilitarian potteries. The potter(s) was (were) expert at forming wheel-thrown vessels, and rims, necks, and lids were carefully and cleanly fashioned. Some of the examples from contemporary and later potters exhibit less attention to detail.

By 1845, the kiln was gone and the lot had been improved through the addition of a three story brick dwelling. Within 14 years, the lot had been subdivided. Although the Pawleys continued

Figure 32. Computer-generated image of reconstructed vessel forms and decorations from the Pawley Kiln assemblage

the import china businesses, they apparently did not continue to employ potters to produce utilitarian wares.

Later Occupation (1850-1900)

Archival Background

The Pawley property at Russell and Cross Streets was subdivided and developed during the middle and late nineteenth century. By 1845, the still intact lot contained a three story brick dwelling, but the stoneware kiln was gone (Ward 18 Tax Assessors Record 1846:175). By 1858, Herman Thaye had purchased the 25 x 66 ft lot at the corner of Cross and Russell Streets, and Ruth Ann Pawley owned the three-story brick dwelling and the remaining 66 x 130 ft lot where the kiln had been located (Tax Assessors Record 1858-1859:394). During the next decade, the Pawley lot was subdivided further into six single residential lots, and a single larger commercial lot at 536 West Cross Street. The commercial lot first was used as a wood yard (Sanborn 1890:III, 115; 1901) and later was converted to an automobile service facility (Sanborn 1914). The remainder of Block 925 was developed as a residential neighborhood after the Berry Brick Company vacated the block between 1890 and 1901.

Results of Archeological Field Investigations

Excavation units 1, 2, and 6 were placed to examine and evaluate features and deposits associated with the row house foundations south of the kiln base (Figure 4). Unit 1 was placed to examine the southernmost brick foundation, and associated builders' trench and soil features. Unit 2 was placed at the eastern edge of the mitigation area to examine linear filling episodes of red sand; and some soil features that contained nineteenth and early twentieth century materials. Excavation unit 6 was placed to straddle the northernmost brick foundation wall, nearest the kiln base. This unit was intended to sample the builders' trench, and several circular soil stains.

Excavation Unit 1 was placed in the southern portion of the testing area, to evaluate the features associated with the foundation wall/builders trench. The aim in placing this unit was to

determine the association of the Feature C-01, a linear red soil deposit (Figure 33). This unit revealed three soil strata that were excavated in eight levels to a maximum depth of 54 cmbd. Feature C-01, an amorphous soil stain, was present within the unit. This feature was determined to be a combination of builders' trench and robber trench for a brick foundation wall. Soils consisted of an overlying red (2.5YR 5/8) slightly clayey sand fill, over very dark grayish brown (10YR 3/2) silt loam filling materials that contained destruction rubble (Figure 33). This was underlain by yellowish brown (10YR 5/8) sandy clay subsoil, and by a remnant brick foundation wall and associated builders trench. The brick wall was two courses wide, laid in Flemish bond, and bonded with sand and oyster shell mortar; the builders trench contained dark brown (10YR 3/3) sandy loam with yellowish brown (10YR 5/6) and light olive brown (2.5Y 5/4) clay.

A total of 532 artifacts was retained from Test Unit 1, and Feature C-01. These included a variety of artifacts dated from the late eighteenth to the late nineteenth century, representing a variety of activities. Functional categories included architectural, clothing, furniture, industrial, kitchen, miscellaneous and personal items as indicated in Table 7.

The majority of these materials were related to kitchen activities, including biological, ceramic, or glass materials. Biological materials accounted for the majority of the kitchen related objects, and included mammal bones and teeth, fish scales, and clam and oyster shells. Kitchen ceramics were a smaller percentage of the kitchen assemblage and included a variety of wares whose manufacture dates ranged throughout the nineteenth and early twentieth centuries. Examples of creamware, domestic gray stoneware, industrial stoneware, pearlware, red earthenware, whiteware, and yelloware were present. Kitchen glass was a small percentage of the kitchen materials, and included mold blown, machine made glass, and table glass.

Architectural materials accounted for the next largest portion of the assemblage form Test Unit 1. These included mainly window glass, along with cut and wire nails, and tar paper roofing shingles. The remaining functional groups were represented by a few items. Activities items included lamp glass and a metal file. The clothing group included a brass button and a straight pin. Some kiln furniture, listed as industrial materials, was present in the tested area. Miscellaneous

Figure 33. Photograph of Feature C-01 (Upper) and the north wall of TU1 (Lower), showing the horizontal configuration and vertical relationship of the robber trench and builders trench

Table 7. Site 18BC88: Summary of Artifacts Recovered Non-Kiln Context

Functional Group	Class	Type	Subtype	TU 01	TU 02	TU 06	Grand Total
Activities	Glass	Miscellaneous	Lamp Glass	3	2	0	5
	Metal	Tool	File	1	0	0	1
Activities Total				4	2	0	6
Architecture	Glass	Architectural Element	Window Glass	58	37	7	102
	Manufactured	Brick	Fragment	3	2	0	5
		Miscellaneous Building Material	Mortar	1	0	0	1
	Metal	Construction Hardware	Tack	0	5	0	5
		Machine Cut Nail, Common	< 2"	3	0	0	3
			2-4"	1	4	0	5
			Fragment	15	14	0	29
		Unidentified	Cut/Wrought Nail	0	10	0	10
			Nail	3	3	0	6
		Wire Nail, Common	< 2"	3	0	0	3
			2-4"	5	1	0	6
			Fragment	5	2	0	7
	Synthetic	Miscellaneous	Roofing Shingle, Tar Paper	4	0	0	4
Architecture Total				101	78	7	186
Clothing	Ceramic	Ceramic Clothing	Porcelain Button	0	1	0	1
	Metal	Metal Clothing	Brass Button	0	2	0	2
		Miscellaneous	Straight Pin	1	1	0	2
Clothing Total				1	4	0	5
Furniture	Glass	Miscellaneous	Mirror Glass	0	1	0	1
Furniture Total				0	1	0	1
Industrial	Ceramic	Kiln	Brick	1	0	0	1
			Sagger	2	0	0	2
			Separator	8	14	13	35
Industrial Total				11	14	13	38
Kitchen	Biological	Food Related	Bone	117	168	0	285
			Cut/Butchered Bone	4	4	0	8
			Fish Scale/Bone	84	22	1	107
			Tooth	4	1	0	5
			Unidentified Bone	105	93	0	198
		Kitchen Use	Nut/Seed/Pit	2	0	0	2
		Shell	Clam	2	0	0	2
			Oyster	13	1	0	14
	Ceramic	Creamware	Lighter Yellow	1	0	0	1
		Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	1	0	0	1
			Gray Salt-Glaze, Floral	0	0	1	1
			Gray Salt-Glaze, Undecorated	6	6	11	23
		Industrial Stoneware	Gray-Bodied (ginger beer)	1	0	0	1
		Ironstone	White Undecorated	0	1	0	1
		Later Porcelain Type	Undecorated Porcelain, Hard	0	2	0	2
		Miscellaneous Stoneware	Black Basalt	0	1	0	1
		Pearlware	Blue Shell-Edged	0	1	0	1
			Undecorated	3	0	0	3
			Underglaze Floral Polychrome	2	0	0	2
		Redware	Clear Glaze, Plain	0	1	0	1
			Unglazed	1	0	0	1
		Slipware	Trailed w/Clear Glaze	0	0	1	1
		Whiteware	Annular	1	1	0	2
			Cream-Colored Earthenware	0	0	1	1
			Polychrome Hand-Painted	0	1	0	1
			Polychrome Transfer-Printed	1	0	0	1
			Shell-Edged	1	1	0	2
			Sponged	1	0	0	1
			Transfer-Printed, Blue/Black/Brown	0	4	0	4
			Undecorated	12	7	0	19
		Yellow Ware	Dipped/Annular	4	0	0	4
			Plain	0	1	0	1
	Glass	Bare Iron Pontil	Dark Green	0	1	0	1
		Blown in Mold	Aqua	1	0	0	1
			Dark Green	0	1	0	1
		Machine Made Bottle	Amber	3	0	0	3
			Clear	3	0	0	3
			Green	1	0	0	1
			Light Green	2	0	0	2
		Melted Glass	Green	1	0	0	1
		Non Machine Made Base	Dark Green	1	0	0	1
		Non Machine Made Bottle	Dark Green	8	1	0	9
		Table Glassware	Unidentified Tableglass	4	2	0	6
		Tooled Lip	Aqua	1	0	0	1
		Unidentifiable Bottle Glass	Amber	0	2	0	2
			Clear	4	0	0	4
Kitchen Total				395	323	15	733
Miscellaneou	Biological	Wood	Unmodified Wood	0	1	0	1
	Metal	Unidentified Object	Iron/Steel	9	18	0	27
			Non-Ferrous Metal	2	0	0	2
			Slag	3	0	0	3
	Stone	Miscellaneous Stone	Coal Slag	2	0	1	3
			Slate	1	0	0	1
Miscellaneous Total				17	19	1	37
Personal	Biological	Grooming	Tortoise Shell Comb	1	0	0	1
	Ceramic	Tobacco Pipe	Ball Clay Bowl, Molded	1	0	0	1
			Ball Clay Stem	1	0	0	1
Personal Total				3	0	0	3
Grand Total				532	441	36	1009

items included unidentifiable metal fragments and coal slag. Personal objects included portions of a tortoise shell comb, and tobacco pipe bowl and stem fragments.

Materials from Feature C-01 included 205 items from the builders' trench (Table 8). These included window glass, wire nails, machine cut nails, bone fragments, oyster shell, domestic gray stoneware, whiteware, industrial stoneware, and machine made bottle glass. Although domestic gray stoneware has a manufacture date range from approximately 1750 to 1900, with a mean date of 1825, the remainder of the datable materials reflect later manufacture. The architectural materials included both wire and machine cut nails. Machine cut nails generally are given a mean date of approximately 1852, and wire nails were manufactured after 1890. The presence of these materials in the builders trench indicated construction after the Pawley kiln ceased operation. In addition, kitchen materials included whiteware, manufacture of which began in 1820, with a mean date of 1908; industrial stoneware produced between 1840 and 1900, with a mean date of 1870; and, machine made bottle glass produced after 1898. The presence of these datable items in the builders' trench indicated that the building for which the foundation was constructed was related to the row house occupation that followed the end of operation of the Pawley kiln in ca. 1850.

Excavation Unit 2 was placed in the extreme southeastern corner of the testing area to evaluate the east-west brick foundation wall (D1), and the associated builders trench (D2). Features C1, D3, D4, and D5, all soil features, also were present within this excavation unit (Figure 34). Three soil strata were present, composed of the light olive yellow (2.5Y 6/6) sand loam B1 and B2 horizons, and the dark yellowish brown (10YR 4/6) C horizon. The builders trench contained mottled clay loam and silt loam, mortar, and domestic stoneware.

Feature C-01 was a continuation of the foundation wall feature identified in Test Unit 1. The feature was excavated to a depth of 42 cmbs, where it overlay Feature D5, the builders trench for the brick foundation wall. This feature included four fill strata, including grayish brown (10YR 5/2), black (2.5Y N2/0), very dark gray (10YR 3/1), and dark grayish brown (10YR 4/2) silty and sandy loams.

Table 8. Site 18BC88: Summary of Artifacts Recovered Feature C-1 Test Unit 1

Functional Group	Class	Type	Subtype	Total
Architecture	Glass	Architectural Element	Window Glass	2
	Metal	Machine Cut Nail, Common	< 2"	1
			Fragment	5
		Unidentified	Nail	3
		Wire Nail, Common	Fragment	3
Architecture Total				14
Kitchen	Biological	Food Related	Bone	67
			Cut/Butchered Bone	2
			Fish Scale/Bone	57
			Tooth	1
			Unidentified Bone	48
		Kitchen Use	Nut/Seed/Pit	1
		Shell	Oyster	3
	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	2
		Industrial Stoneware	Gray-Bodied (ginger beer)	1
		Whiteware	Annular	1
			Polychrome Transfer-Printed	1
			Sponged	1
			Undecorated	3
	Glass	Machine Made Bottle	Light Green	2
		Non Machine Made Bottle	Dark Green	1
Kitchen Total				191
Grand Total				205

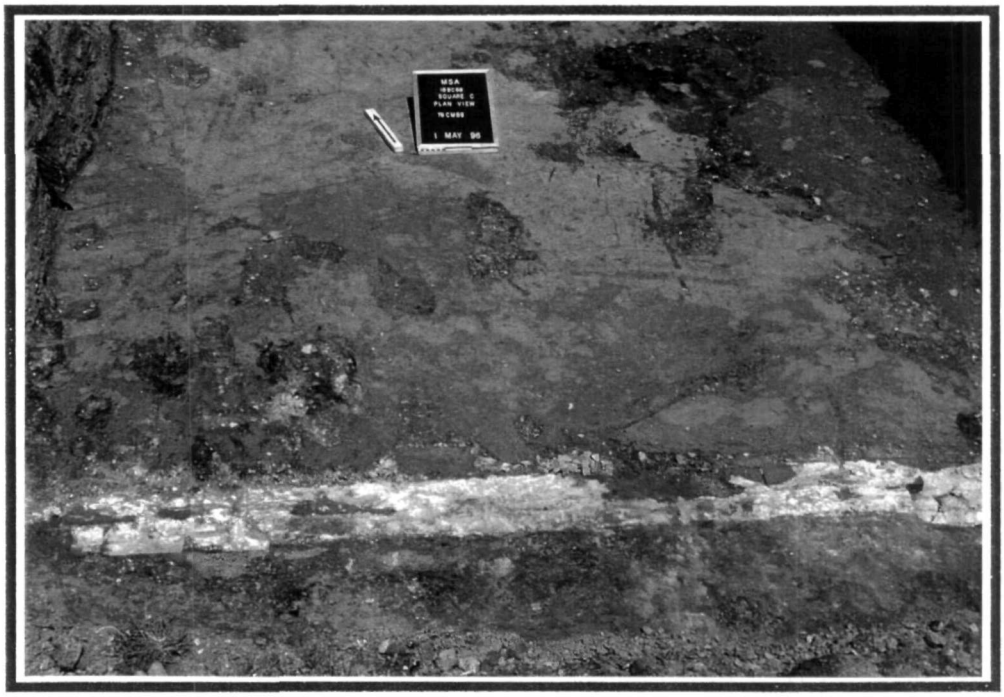


Figure 34. Photograph of TU2, showing the locations and interrelationships of features related to the brick foundation walls

A total of 298 items was retained from this feature. These included kitchen, architectural, miscellaneous, clothing, activities, furniture, and industrial items. The largest functional group was composed of kitchen objects, which accounted for 78 per cent of the assemblage from this feature. Although the majority were biological materials including bone, shell and fish scales, these 233 items included a few fragments of kitchen glass and ceramics. Ceramics included red earthenware, whiteware, domestic gray stoneware, and ironstone. Kitchen glass included fragments of unidentifiable bottle glass, mold blown glass, machine made glass, and a fragment identifiable only as non-machine made.

The remaining 22 per cent of the collection from Feature C1 was composed of architectural, miscellaneous, clothing, activities, furniture, and industrial items. The architectural sub-assemblage was composed mainly of window glass and nails. The nails included machine cut and wire nails. A few fragments of brick and some small hardware also were present.

Miscellaneous materials included unidentifiable metal and wood fragments. Clothing-related articles included a straight pin and three buttons: one porcelain shirt button; one two-piece domed brass button with a floral design, and one one-piece stamped four-hole brass button. Lamp chimney glass and mirror glass represented the activities and furniture groups. The industrial group was represented by a fragment of kiln furniture.

These cultural materials reflect late filling, related to demolition of the row house foundations that post-dated the operation of the kiln. In general, the materials in this feature represent a mixture of the remnant of primary deposits from the occupation of the dwellings that post-dated the demolition of the kiln, and destruction rubble from the demolition of the row houses in the early twentieth century. Datable materials present within the fill included machine made bottle glass, dated after 1898, and wire nails, dated after 1890. These represented the earliest period in which the demolition could have occurred. Some objects with earlier manufacture dates were present in the fill. These included machine cut nails dated between 1815 and 1890. These nails, along with the window glass, probably represent the wood frame buildings that stood on the brick foundations.

Among the kitchen ceramics, whiteware and ironstone, which date after 1820 and 1850, indicate possible late occupation of the row houses, after the demolition of the Pawley kiln.

Features D2 and D5 were present immediately below C1: Feature D-2 was the builder's trench associated with the brick foundation wall, and Feature D5 was the builders' trench associated with the later, perpendicular, foundation wall (Figure 35). Feature D2 was excavated in three arbitrary levels to a maximum depth of 44 cmbs. Soils within the trench were composed of light olive brown (2.5Y 5/6) silt loam, mottled with dark gray (10YR 4/1) and very dark gray (10YR 3/1) clay. These clays were the raw material the potter used in the production of stoneware. Although brick and mortar were noted in all levels, non-architectural materials were present only in the upper 10 cm level. A total of 22 items was retained from the builders' trench (Table 9). The majority of these materials were bone fragments, including mammal and fish bones. Datable materials comprised only two machine cut nail fragments, and two examples of kitchen ceramics: domestic gray stoneware, and yelloware. Domestic gray stoneware dates generally between 1750 and 1900, with a mean manufacture date of 1825, while yelloware dates generally between 1803 and 1930, with a mean manufacture date of 1880. Because yelloware has a beginning date of 1830, this builders trench could not have been refilled before that date, indicating that this portion of the building was constructed sometime after 1830. The presence of the machine cut nails indicates further that the construction date would have been after 1815.

The D2 builder's trench was cut by Feature D5, the builder's trench for the later, north-south brick foundation wall (Figure 35). This feature also was removed in three arbitrary 10 cm levels. Soils comprised brown (10YR 5/3) sandy loam, with mortar and brick inclusions. Fourteen courses of brick were present in the remnant foundation wall. The wall was constructed of machine-made red brick in a common bond pattern, with shell and sand mortar. Although this feature also contained stoneware wasters and kiln furniture, these were a small percentage of the materials present. Other cultural materials included architectural and kitchen related items dated largely from the late nineteenth and early twentieth centuries.

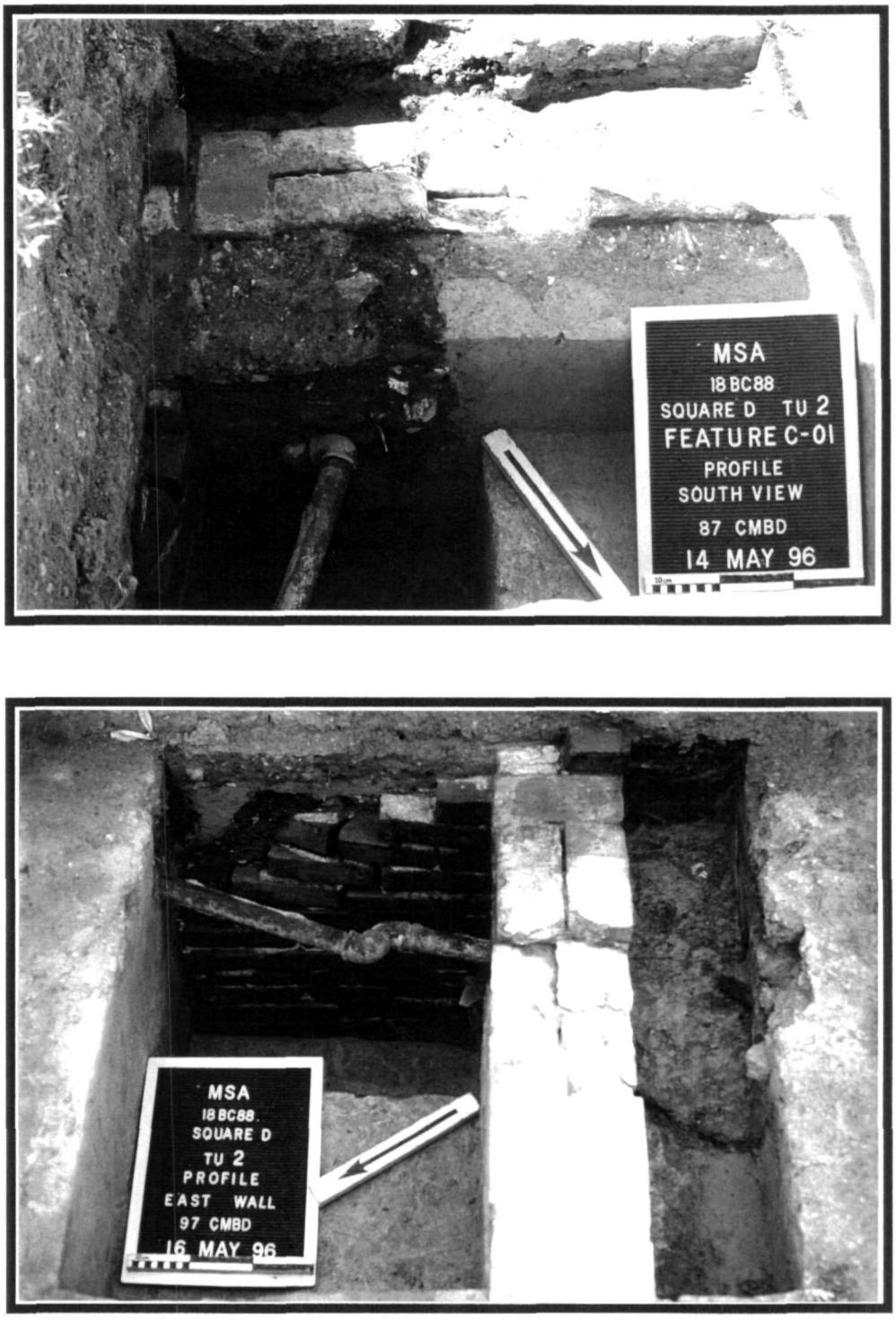


Figure 35. Photograph of Features D2 and D5 after excavation, showing the intersection of the foundation walls

Table 9. Site 18BC88: Summary of Artifacts Recovered from Features in Test Unit 2

				Feature Number								
Functional Group	Class	Type	Subtype	C-1N	C-1S	D-2	D-3	D-4	D-5	D-5N	D-5S	Grand Total
Activities	Glass	Miscellaneous	Lamp Glass	0	0	0	1	0	0	1	0	2
Activities Total				0	0	0	1	0	0	1	0	2
Architecture	Glass	Architectural Element	Window Glass	7	9	4	4	2	3	5	3	37
	Manufactured	Brick	Fragment	2	0	0	0	0	0	0	0	2
	Metal	Construction Hardware	Tack	4	1	0	0	0	0	0	0	5
		Machine Cut Nail, Common	2-4"	4	0	0	0	0	0	0	0	4
			Fragment	5	1	2	3	0	0	1	2	14
		Unidentified	Cut/Wrought Nail	0	3	0	6	1	0	0	0	10
			Nail	1	2	0	0	0	0	0	0	3
		Wire Nail, Common	2-4"	1	0	0	0	0	0	0	0	1
			Fragment	2	0	0	0	0	0	0	0	2
Architecture Total				26	16	6	13	3	3	6	5	78
Clothing	Ceramic	Ceramic Clothing	Porcelain Button	0	1	0	0	0	0	0	0	1
	Metal	Metal Clothing	Brass Button	0	2	0	0	0	0	0	0	2
		Miscellaneous	Straight Pin	0	1	0	0	0	0	0	0	1
Clothing Total				0	4	0	0	0	0	0	0	4
Furniture	Glass	Miscellaneous	Mirror Glass	0	1	0	0	0	0	0	0	1
Furniture Total				0	1	0	0	0	0	0	0	1
Industrial	Ceramic	Kiln	Separator	1	0	3	2	0	1	6	1	14
Industrial Total				1	0	3	2	0	1	6	1	14
Kitchen	Biological	Food Related	Bone	58	62	5	13	0	3	16	11	168
			Cut/Butchered Bone	0	4	0	0	0	0	0	0	4
			Fish Scale/Bone	4	16	1	0	0	0	1	0	22
			Tooth	1	0	0	0	0	0	0	0	1
			Unidentified Bone	48	27	5	2	1	6	4	0	93
		Shell	Oyster	0	0	0	0	0	0	1	0	1
	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	0	2	1	0	0	0	3	0	6
		Ironstone	White Undecorated	0	1	0	0	0	0	0	0	1
		Later Porcelain Type	Undecorated Porcelain, Hard	0	0	0	2	0	0	0	0	2
		Miscellaneous Stoneware	Black Basalt	0	0	0	0	0	0	1	0	1
		Pearlware	Blue Shell-Edged	0	0	0	1	0	0	0	0	1
		Redware	Clear Glaze, Plain	0	1	0	0	0	0	0	0	1
		Whiteware	Annular	0	0	0	1	0	0	0	0	1
			Polychrome Hand-Painted	0	0	0	1	0	0	0	0	1
			Shell-Edged	0	0	0	0	0	0	1	0	1
			Transfer-Printed, Blue/Black/Brown	1	1	0	0	0	0	1	1	4
			Undecorated	0	2	0	1	0	1	3	0	7
		Yellow Ware	Plain	0	0	1	0	0	0	0	0	1
	Glass	Bare Iron Pontil	Dark Green	1	0	0	0	0	0	0	0	1
		Blown in Mold	Dark Green	0	1	0	0	0	0	0	0	1
		Non Machine Made Bottle	Dark Green	0	0	0	0	0	0	1	0	1
		Table Glassware	Unidentified Tableglass	1	0	0	0	1	0	0	0	2
		Unidentifiable Bottle Glass	Amber	2	0	0	0	0	0	0	0	2
Kitchen Total				116	117	13	21	2	10	32	12	323
Miscellaneous	Biological	Wood	Unmodified Wood	0	1	0	0	0	0	0	0	1
	Metal	Unidentified Object	Iron/Steel	2	14	0	2	0	0	0	0	18
Miscellaneous Total				2	15	0	2	0	0	0	0	19
Grand Total				145	153	22	39	5	14	45	18	441

The majority of the 77 items were retained from the builders' trench, and were composed of kitchen related materials. These 54 items, 70.14 per cent of the collection, included a few fragments of kitchen glass or ceramics, but were comprised mainly of large mammal bones and a few bird and fish bones. The ceramics included whiteware, domestic gray stoneware, and a fragment of black basalt ware. This sample of materials included some architectural items, mostly window glass, and a few machine cut nails. The remainder of the artifacts from this feature were lamp glass and eight fragments of kiln furniture.

Black basalt and domestic gray stoneware date after 1750, and whiteware dates after 1820; machine cut nails date after 1815. All of these materials reflect construction in the mid-nineteenth century. The placement of the builders trench, cutting into Feature D2 would indicate that this portion of the building was constructed after 1830, later than the walls associated with the D2 builders' trench. The presence of kiln furniture indicates that this construction occurred either during or immediately following the operation of the kiln.

The remaining features within this excavation unit, D3 and D4, represented isolated, shallow filling episodes that were related to demolition of the dwelling. Feature D4 contained only five items, two fragments of window glass and a nail fragment, table glass and bone fragment; D3 contained 39 items, mainly bone, window glass and nails. Ceramics included whiteware, late porcelain, and pearlware. Other functional groups included miscellaneous metal and kiln furniture.

Excavation Unit 6 was placed to examine features associated with the brick foundation wall immediately south of the kiln base (Figure 36). Only the features (C3-A, C3-B, and C3-C) present within the unit were excavated. Feature C-3A was a post hole located immediately south of the foundation wall. This circular posthole contained dark brown (10YR 3/3) sandy loam, and broken chunks of a poured concrete post support. No datable cultural materials were present in this feature.

Feature C3-B was the builders trench associated with the two-course, mortared brick foundation wall. The trench was narrow, averaging 20 cm in width, and only measuring 45 cm at its widest point. Two soil strata were present within the builders trench, a yellowish brown (10YR

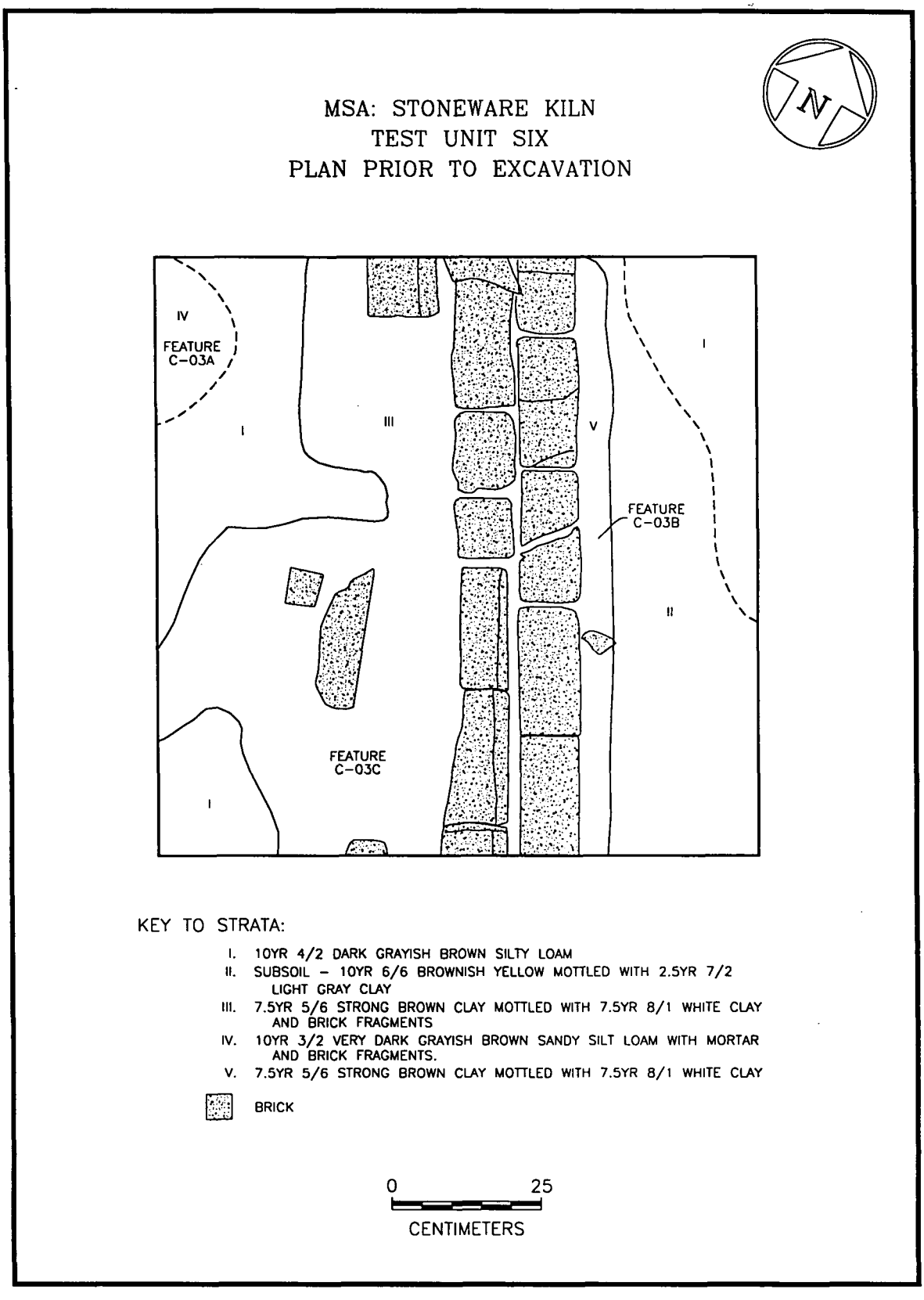


Figure 36. Plan of TU6 showing the locations of soil features and the east-west foundation wall

4/2) silt loam that contained a high percentage of fragments of stoneware kiln furniture and wasters, and a reddish (7.5YR 5/6) clay mottled with brown (10YR 5/4) loam, and mortar. An additional builders trench was present on the opposite side of the foundation wall. This trench was only 4 cm wide, and contained mottled strong brown (7.5YR 5/6) clay. No cultural materials were present in the second builders trench.

Feature C3-C was the builders' trench along the opposite side of the brick foundation wall. This feature was excavated in two natural strata that included a very dark grayish brown (10YR 3/2) silt loam containing brick and mortar fragments, over a mottled fill composed of dark grayish brown (10YR 4/2) silt loam, strong brown (7.5YR 5/6) clay and yellowish red (5YR 5/6) sandy loam. Twenty-two items were retained from the upper level, including window glass, a fish scale, domestic gray stoneware, trailed slipware, coal slag, and eight fragments of kiln furniture (Table 10). An additional 12 artifacts were retained from the lower stratum, including only domestic gray saltglazed stoneware, and kiln furniture. Datable ceramics among these objects reflect filling of the trench after 1820. Additionally, the presence of kiln furniture reflects construction during or after the period of operation of the kiln. There is little evidence that this foundation wall is related to those represented by features C1 and D1-5. This foundation may be a remnant of the building shown occupying the corner of Russell and Cross Streets during the period of operation of the kiln, between 1825 and 1845.

Summary

In the mid-nineteenth century, the character of the neighborhood began to change from the predominantly upper middle class, residential pattern that had predominated through the first half of the century, to working class/commercial. Where single family homes had predominated, these were replaced increasingly by multi-family dwellings. Large single-dwelling lots were replaced by increasing subdivision, rowhouse construction, and the development of alley dwellings on the interior of the blocks.

Table 10. Site 18BC88: Summary of Artifacts Recovered from Features in Test Unit 6

Functional Group	Class	Type	Subtype	Feature Number C-3B	Feature Number C-3C	Grand Total
Architecture	Glass	Architectural Element	Window Glass	0	7	7
Architecture Total				0	7	7
Industrial	Ceramic	Kiln	Separator	0	13	13
Industrial Total				0	13	13
Kitchen	Biological	Food Related	Fish Scale/Bone	0	1	1
	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	0	1	1
			Gray Salt-Glaze, Undecorated	1	10	11
		Slipware	Trailed w/Clear Glaze	0	1	1
		Whiteware	Cream-Colored Earthenware	1	0	1
Kitchen Total				2	13	15
Miscellaneous	Stone	Miscellaneous Stone	Coal Slag	0	1	1
Miscellaneous Total				0	1	1
Grand Total				2	34	36

After 1850, most of the residents of the immediate area of the Pawley property worked in a variety of industrial occupations and rented their homes. Residents included both African American and white residents; whites primarily were first or second generation immigrants from Northern and Western Europe (U.S. Census 1900, 1910). Intensive development and subdivision of larger parcels was a neighborhood-wide trend throughout the last quarter of the nineteenth century and into the twentieth century. Occupation appeared to be evenly divided between domestic and commercial/industrial space. A trend of increased commercialization /industrialization continued throughout the early twentieth century, with an accompanying decline in the standard of living of the remaining residents.

The brick foundations, features, and material culture from the units not related directly to the kiln reflect this era of development and combined use of space. In general, residential development on the block consisted of long, narrow lots with row houses lining the street, and yard areas at the back, on the interior of the block. Sometimes the blocks were subdivided further by alleys. Many lots included small dependencies such as sheds, privies or summer kitchens in the yard area, and garages or stables, or small tenant dwellings at the back of the lot, along the alleys. Generally these dwellings were built on brick foundations, comprising a range from brick piers to brick footers, and full brick basements. Many of the row houses were constructed of brick, as well. However, just as many were constructed of wood. These tended to be the less expensive tenant dwellings that had either piers or brick footers, and did not include full basements. This was the type represented by the foundations and footers present in the current excavations, as well as those present in other areas of the block, investigated in 1992 (Kuranda et al. 1992). Fire insurance maps of the period indicate one or two story wooden dwellings along the street, with wooden ells or additions at the rear (Sanborn 1890, 1914).

The materials from the features and excavation units also reflected the economic nature of the neighborhood. These included a variety of glasswares and ceramic types typical for urban contexts in the late nineteenth and early twentieth centuries. Increased mass production had made a wider variety of materials and goods cheaper and more available. The most typical of the

ceramics were pearlwares, whitewares, and ironstone. These ceramic types are found throughout urban settings for the late nineteenth and early twentieth centuries. Although some examples of mold blown glass were present, examples of glass from these late features largely were machine made bottle glass, dating after 1898. Mold blown glass was prevalent throughout the nineteenth century, made in one, two, or (later) three piece molds. Later molded bottles were produced using either post-bottom or cup-bottom molds. Machine made wide mouth fruit jars were available after 1880, as were milk bottles, the remainder of machine made forms did not become widely popular until after the turn of the century (Jones and Sullivan 1989:38).

In general, the structural remains and material culture present in the area immediately south of the kiln reflect later nineteenth and early twentieth century development of the block that followed a generalized pattern for the larger neighborhoods surrounding Camden Yards and the railroad terminals. Increasing industrialization and subdivision are evidenced in the structural ruins, and later intrusive filing and destruction episodes. Changes in the nature of and access to material wealth and the lowering standard of living generally are evidenced in material culture remains. The material culture associated with the row houses shows a similarity to collections analyzed for similar time frame in adjacent blocks (Kuranda et al. 1992). Those collections reflected the working-class nature of the neighborhoods. Despite occasional hints at ethnicity, the eastern European, Irish, and African American make-up of the area, the collections show a similar range of wares and vessel forms that reflects the economic market in which the larger neighborhood was operating.

CHAPTER V

RESULTS OF INVESTIGATIONS FOR THE J.S. BERRY BRICK MILL (18BC89)

Introduction

Excavations in 1992, near the intersection of Russell and Hamburg Streets exposed the remains of a large, circular wooden structure that represented the platform of a clay mixing vat, known as a pug mill. In-ground devices of this type were used by both potters and brick makers to prepare clays prior to converting them into finished products. Subsequent construction and demolition events had had little impact on this wooden structure. One-quarter of the feature was exposed and documented at that time (Figure 11); it subsequently was covered and left in place. The remaining three-quarters of the feature were left undisturbed and preserved in place for later investigation.

Archival and cartographic research documented the association of this structure with the J.S. Berry Brick Company. The 1890 Sanborn Fire Insurance map of this block showed four such mills operated by Berry Brick. Two of the mills were horse-powered, and two were steam-powered.

Although remnants of the associated steam powered mills located south of the horse-powered mill were identified and recorded at that time, these features retained no integrity, and their industrial, early twentieth century manufacturing context had been compromised by later construction and landscape modifications. No evidence was found of the steam powered mill shown on Sanborn Fire Insurance maps to the east of the wooden mill. Current mitigative efforts were designed to focus on the remaining wooden mill structure, with verification that additional remnants of the associated mills were absent.

Results of Archival Background Research

Two questions posited in the original research design were concerned with archival or historic data about the operations and market of the Berry Brick Company:

What information can this feature provide that will increase our understanding about the Baltimore brickmaking industry of the early 19th century?

What information can we provide about the markets and trade of the products? Was production aimed at a local market? Were the products being exported?

These questions could be answered only partially with available data. The contextual information presented below comprises the total of information available without extensive primary research.

Development of Baltimore's Brick Industry

Because the Camden Yards area was so close to the Patapsco River, the area traditionally was a prime location for the manufacture of both ceramics and brick, due to its large deposits of marine and alluvial clays. Beginning in the late eighteenth century, brickmaking was a major industry in Western Baltimore, and the Albright, Berry, Krebs, Nagle, Russell, and Warner families purchased extensive tracts of real estate in this vicinity. Late eighteenth and early nineteenth century maps of the project area (Folie 1792; Warner and Hanna 1801) depicted the locations of clay pits and brick drying sheds to the north west, around Conway and Eutaw Streets.

Berry Brick Company's own promotional literature dated the Berry family's initial involvement in brick manufacturing to 1812 (Berry 1870:2). Early nineteenth century city directories listed J. and T. L. Berry, "fireproof brick man," at South Sharp Street near Hill (Matchett 1842). Although tax records indicated that John W. Berry operated a brick kiln at Russell and Hamburg Streets as early as 1838, the family's major production facility probably moved to its Russell Street location during the late 1850s (Woods 1866).

Berry Brick specialized in the manufacture of fire bricks, a high grade material used to line the flues and chambers of furnaces and smelters, as well as tiles for lining commercial bake ovens. Their principal competition came from English Stourbridge bricks. The company's products, stamped "Berry's PREMIUM Fire Proof," were marketed to iron furnaces, foundries, gas light companies, and glass works in the Baltimore-Washington metropolitan area (Berry 1870:6-16).

Baltimore's brick-making industry continued to flourish through the third quarter of the nineteenth century. In 1870, the city's 47 brick and tile manufacturers employed over 1,700 people, paid over $.5 million in wages, and produced an output worth $985 million. By 1880, however, the city's brick industry was in major decline; only six establishments, employing a total of 627 workers, remained, and the value of their combined output had plummeted to only $218.5 million (MMAB 1882:47).

The Berry Company apparently weathered this crisis, although perhaps in a diminished capacity. In 1880, the company employed only 25 laborers, 60 per cent of whom were under the age of 16. Skilled workers at the brickyard were paid $1.75 per day, but unskilled workers netted only $1.12 for a ten-hour day. During 1880, the operation was idle for eight months out of 12, and the company produced only 200,000 fire bricks and $500 worth of bake oven tile. In contrast, the city's largest brick-making firm, Riers, Russell and Company, maintained a work force of 265, all of whom were over 16. Riers/Russell operated during seven months, and its total output was worth at $102,000 (U.S. Census of Manufactures 1880:6-8).

Brick-making Technology

Five principal stages were involved in the brick-making process: mining (known as "winning"); preparing the clays; molding (known as "forming"); drying; and firing (known as "burning")(McKee 1974:82). Gurcke (1987:5) observed that to obtain raw clays, "digging by hand in shallow pits seems to have been the common practice in both Great Britain and the United States during the nineteenth century." Sometimes the raw clay was weathered by permitting it to lie exposed during the winter, a process which removed soluble salts and broke down the harder lumps in the matrix.

The clay then was tempered to make it pliable and to give it an even consistency. Various materials such as sand, ash, or ground chalk might be added during this phase to reduce shrinkage of the final product. If fire brick was the intended end product, grog (ground dry clay) was added to reduce shrinkage and cracking (Gurcke 1987:13). Complete amalgamation of the raw clay with

the added tempering agents was accomplished in a variety of ways, depending upon the sophistication of the manufacturer. In the simplest process, the various elements were simply mixed with a shovel or in a ring pit, a circular horse-powered vat containing a wheel. Pug mills, which initially were developed by the pottery industry during the eighteenth century, differed from ring pits in that paddles rather than wheels were used to mix the ingredients. Clay, sand and water were introduced at the top of the machine and were forced out of an opening at the bottom of the machine (McKee 1974:84); this suggests that a pug mill was an above-ground structure rather than an in-ground one, as depicted in a mid-nineteenth century patent drawing of a mechanized mill (Figure 37). The pug-mill excavated at Russell and Hamburg Streets may have been a ring-pit, or it may have represent a transitional design. Later pug-mills were steam-powered; by century's end, the Berry Company had both (Sanborn 1890: III, 115).

The tempered clay then was molded into its final brick form. In the simplest variation of the process, clay was pressed by hand into wooden or iron clad molds, a job that required the services of a skilled worker (McKee 1974:82). A top rate moulder, working the length of a summer day, reportedly could turn out between 10,000 and 12,000 bricks, but the norm probably was approximately half that amount (McKee 1974:92, Note 2). Attempts to mechanize the molding process began during the late eighteenth century, and numerous patents were taken out during the first half of the nineteenth century to improve the process. Depending on the method used, a mechanized molding operation could produce between 20,000 and 60,000 unfired bricks in a 12-hour day (McKee 1974:84-88).

Molded bricks next were air dried for several days in low stacks known as hacks. The time required for the drying process was reduced in 1862 when Chambers, Brother and Company, a Philadelphia steam engine manufacturer, developed a brick dryer. This device accelerated evaporation of moisture by introducing carloads of brick into a tunnel through which warm air was forced (McKee 1974:88).

Finally, the dried bricks were fired in a kiln (Gurcke 1987:4). The earliest kilns, known as "clamps" or "scove" kilns, were temporary. They consisted of a series of corbeled arches formed

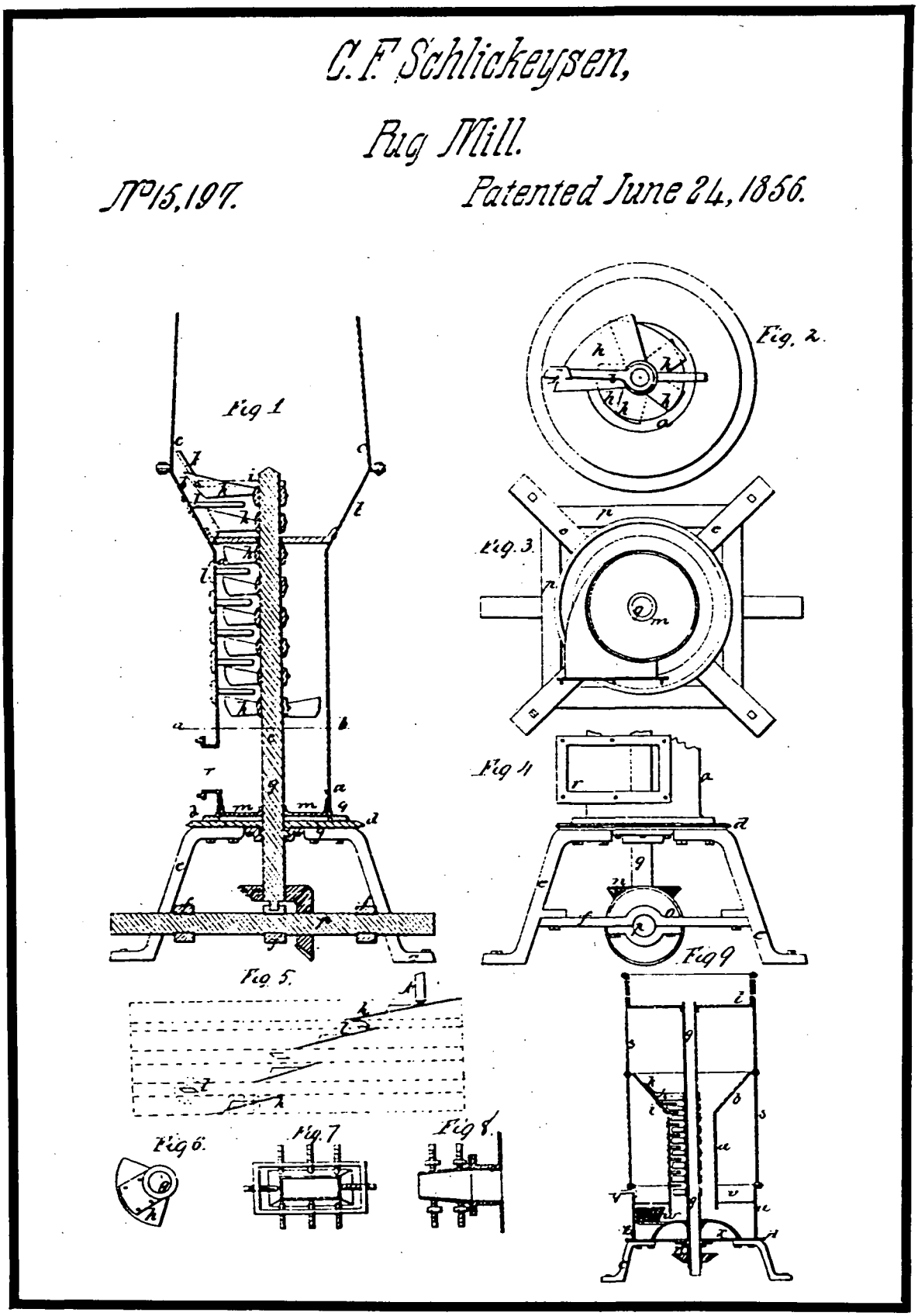


Figure 37. Mid-nineteenth century patent drawing of a brick pug mill

by stacking the unfired brick. After the stacked brick was covered with a mixture of clay and straw, fuel was introduced into the channels formed by the corbeling. The intense (1,800° F) heat built up within the passageways was retained inside the structure for several days to complete the firing process (Rhodes 1968:44-45). The entire clamp then was dismantled, and the bricks were sorted. The soft, incompletely fired "samel" bricks on the exterior of the kiln were utilized for such purposes as "nogging." The most intensively fired bricks closest to the fire chambers acquired a shiny glaze, and often were utilized to create decorative patterns seen on exterior walls of eighteenth century buildings. The adoption of permanent kilns, such as the Newcastle kiln, permitted better control of the heat and thereby increased the useable output of a manufacturer by ensuring a more uniformly burnt product.

Understanding brick manufacturing technology provides the basis for interpreting the features at the Berry Brick site accurately. According to the 1890 Sanborn-Perris Fire Insurance Map, the Berry Brick Works complex encompassed several unidentified single-story frame structures; two or three kilns, both wood and coal-fired; a brick oven; several single story brick sheds; a tool house; brick "floors;" and four clay pits (Sanborn 1890:III, 115)(Berry 1870:3).

Results of Archeological Field Investigations

Research Questions

Three of the research questions proposed in the original work plan were answerable using data gathered from archeological field investigations. A brief review of those questions is presented below, along with the initial evidence that they may have been answerable through archeological investigation. This review is followed by the results of field investigations and analysis pertinent to those questions.

> *What specific information can this feature provide about the technology of brick-making industry, in a portion of the process that is not well documented?*

In the summary of his work, Gurcke notes that archeological research on brickmaking technology has been confined almost exclusively to the excavation of brick clamps and kilns, or to the analysis of the molding techniques utilized to form the bricks. No archeological research concerning the other technological aspects of the brick industry has been presented. The J.S. Berry Brick Company pug mill certainly was the first such feature to be uncovered in the City of Baltimore; it possibly is the first feature of its kind to be examined archeologically within the continental United States.

Gurcke, in his book *Bricks and Brickmaking* (1987) has explained the operation of a pug mill (also known as a mud mill) as follows:

> Early pug mills usually took the form of a wooden tub through which ran a vertical shaft of wood. To this shaft was attached a series of blades 'extending from the shaft in four directions, but so placed that one does not follow directly under the other. To trace the knives around the shaft would be like following the thread of a screw.' Clay and additives were dropped into the top of the container that also held the shaft. As the clay made its way down, it was thoroughly mixed by the rotating blades until it was ready to be removed at the bottom (Gurcke 1978:10)

With a diameter of approximately 6.4m (21.0) ft, and with portions of its wooden tub intact, the J.S. Berry Brick Company pug mill represented a primary example of how American brickmakers adapted earlier technologies to meet the demands of a mass economy.

> *What information does the feature provide concerning the construction of the mill itself? What types of materials were used for its construction, and were the specifications to which it was built standardized either locally or regionally within the brickmaking industry?*

Several brick manufacturing companies operated within the greater Baltimore area, and in the immediate vicinity of the Berry works, due to the presence of multiple clay pits. Archival investigation failed to provide much insight into this question. Additional research into archival records at the Maryland Historical Society and at the U.S. Patent Office archives failed to produce additional, or more in-depth information concerning the construction and specifications for materials for early wooden pug mills. At the U.S. Patent Office, specifications for the earliest recorded patent for a clay-mixing machine (1832) were unavailable.

We know from archival evidence that the Berry Brick Company specialized in fire proof bricks. Can we find evidence of this specialization and how is it manifest?

Archival research indicates that the J.S. Berry Brick Company manufactured specialized fire bricks, used for lining flues and chambers of furnaces and smelters, as well as tiles for lining commercial bake ovens. The company's products, stamped "Berry's PREMIUM Fire Proof," were marketed to iron furnaces, foundries, gas light companies, and glass works in the Baltimore-Washington metropolitan area. Excavation of the pug mill was thought to have the potential to provide information concerning early adaptations of technology to this specialization.

Results of Analysis

Intensive field investigations were undertaken at the pug mill site between May 21 and May 24, 1996. The principal goal of these investigations was to record the remaining wooden structure in place, paying particular attention to the details of its design, and materials and methods of construction. To document the mill's overall dimensions and to record the configuration of individual timbers, more than 1,000 measurements were recorded, and 264 photographs were taken. Additionally, wood samples were taken for identification of wood species used in construction, and representative examples of hardware were retained for identification and dating.

As detailed in the methods chapter, the overlying paving and fill materials were removed mechanically to expose the wooden structure. When the mechanized excavation had proceeded to within 20 cm of the wooden structure, mechanical excavation was discontinued and the remaining fill and overburden were removed manually. Once exposed in its entirety, it was apparent that portions of the circular wooden structure had been impacted by later construction. These impacts included a pipe trench that extended diagonally across a portion of the northeastern quadrant of the structure, and a stone foundation wall that intersected the extreme northern arc of the circle. Additionally, the impressions of horizontal boards attached to evenly spaced upright posts were noted in the overlying fill materials at the western edge of the circular platform. These represent the original exterior wall of the wooden basin of the mill.

Five separate, complementary recording techniques were employed for recording the mill: azimuth/distance measurements from a central datum; detailed photographic documentation; detailed measurement of individual elements; dual-coordinate plotting; and, sampling. A brief description of each of these approaches is presented below.

Azimuth/distance measurements from a central datum made use of techniques used in underwater settings to obtain reference points quickly and accurately. This technique was selected as the most efficient and effective means of recording the circular, flat, and relatively small feature. Azimuth measurement provided both speed and accuracy in the field, and it enabled direct input of data into an AutoCadd system for plotting. This technique entailed the establishment of a single datum at the center of the circular mill structure. The datum was composed of a compass card and a compass placed on a vertical copper rod, with the 0^0 mark oriented to magnetic north. When a tape measure was attached to the rod, the locations of selected points on the wooden structure were recorded by pulling the tape to the selected point and recording the distance and azimuth. The wooden structure was recorded using 180 points, these later were transferred into a computer graphics program as the base to which more detailed information was added. This basic measurement was augmented by the use of photographic recording and detailed measurement of individual elements of the wooden structure. A series of approximately 240 overlapping 35 mm black and white photographs were taken of the mill structure. A photomosaic was created from these photographs that provided both a photographic record of the structure, and aided in the interpretation and analysis of materials and technological data (Figure 38). Additional photographs were taken of the subfloor frame platform and of the entire structure. This combination of detailed measurement and photographic recordation ensured that even the most minute, easily overlooked details of the materials and method of construction were documented. Detailed measurements also were taken of the several components and elements of structural debris that rested on the circular floor of the mill.

This detailed recording allowed for comparison of the dimensions of three trapezoidal wooden structures lying on the mill floor, and those of the impressions of uprights and vertical

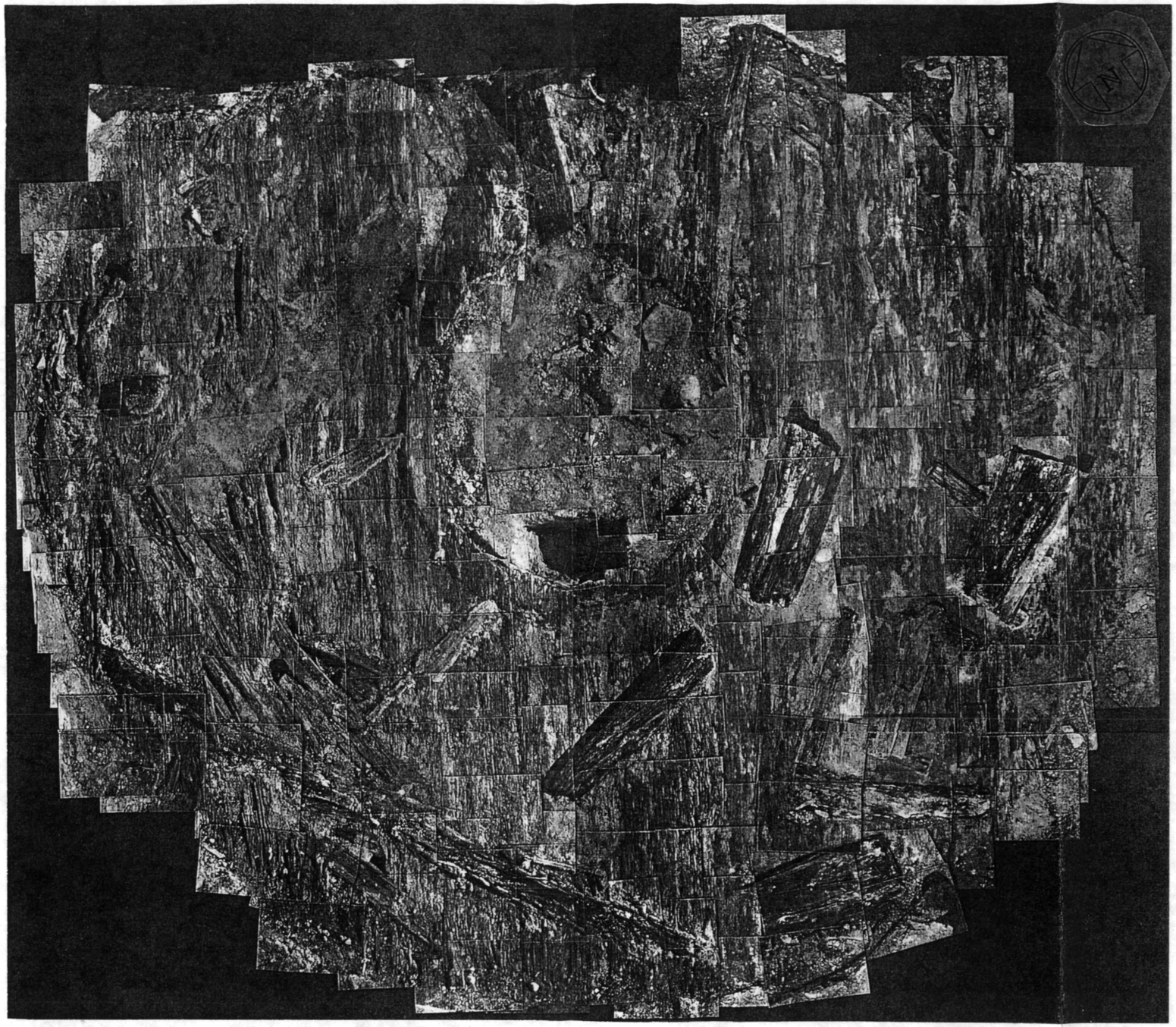


Figure 38. Photomosaic of the remaining wooden structure of the pug mill

planking. This comparison revealed that the intact wooden constructions were collapsed portions of the exterior wall; the trapezoidal shape was intended to create an outflaring wall.

Once the details of the planking floor had been thoroughly documented, the fragmentary planking on the western half of the structure was removed, exposing the wood frame subfloor (Figure 39). Due to the relative complexity of this support system, a two-datum system of measurement, using x and y coordinates, was used to record the details of construction. A total of 146 points were recorded and input into the AutoCadd system. Finally, to complement and support the technological and methodological data from field recording, samples of wood and nails were retained; for species identification and for analysis of method of manufacture and dating.

Analysis has shown that the existing feature is the remains of a large, shallow, round tub, measuring 8.44 m in diameter and 50 cm deep, with a roughly circular 2.40 m diameter opening at its center (Figure 39). The floor of the tub was composed of 33 individual pine planks that had been flat-sawn, using a circular saw, to an average thickness of 2.75 cm and width of 26 cm. A slightly raised lip is present around the central opening and the exterior edge; this feature may have been created intentionally as part of construction, or it may have resulted from use-wear.

A geometrically complex sub-floor platform was present beneath the planking (Figure 39). This portion of the feature was constructed of rough-hewn oak and pine logs set on a prepared ground of fine sand. The individual sub-floor timbers measured 15-27 cm in diameter, and 85 to 233 cm in length. The ends of these timbers had been cut diagonally to fit the circle, and did not appear to have been fastened to one another. The lower surface of some of these timbers was notched, suggesting that they had been hand hewn and reused. The overlying platform was fastened to these timbers using 25 cm long, machine cut, hand finished spikes (ca. 1840). The locations and dimensions of the uprights and vertical planking indicated that the floor had been encircled by a low, outward flaring wall constructed of a series of short, trapezoidal sections that measured approximately 102 cm at the base and 114 cm at the top.

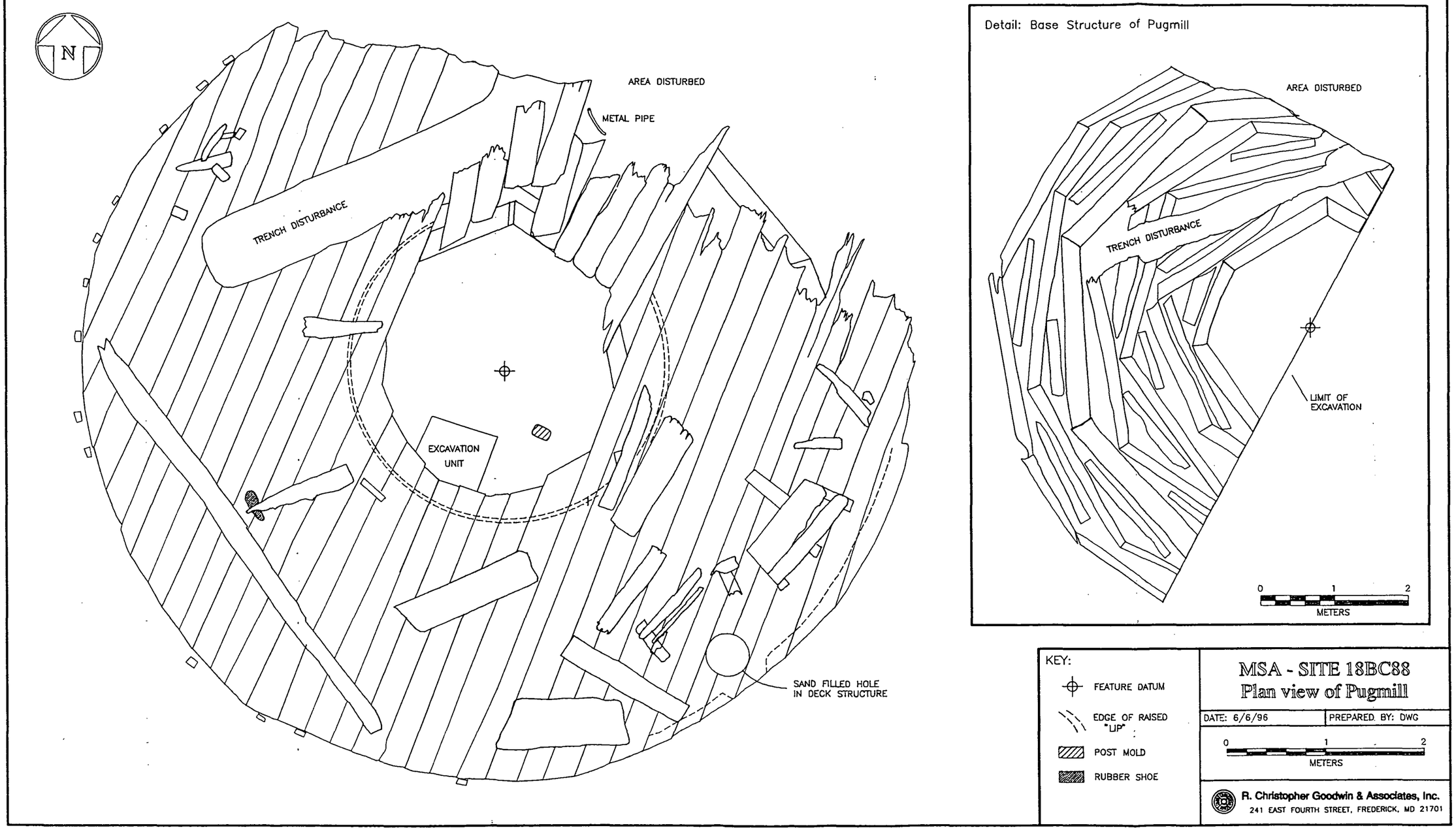


Figure 39. Plan drawing of the wooden deck and subflooring of the brick mill

Summary

The wooden structure identified as 18BC89 represents an isolated remnant to the Berry Brick Company works that occupied this portion of the block from about 1850 to 1890. The Berry operation was relatively large, but not as large as some others in Baltimore, such as Reiers, Russell and Company. The Berry operation made fire bricks for the Baltimore-Washington market in the period just prior to the development of mass production. The mill represents the second of five stages of brick manufacturing: mining, preparation, molding, drying and firing. The mills, first horse drawn, then stem powered, and mechanized, were used to mix tempering agents with the raw clays after they had weathered, and before they were molded. Archeological investigations indicated that the wooden remains represented the base and sides of a large wooden tub, constructed of pine planks, and resting on a subfloor made of reused oak beams (Figure 40). A mechanism for mixing the raw clay with tempering agents, similar to that shown in patent drawings, would have rested over the central opening in the plank floor. This mechanism would have ben powered by a horse or mule hitched to a sweep.

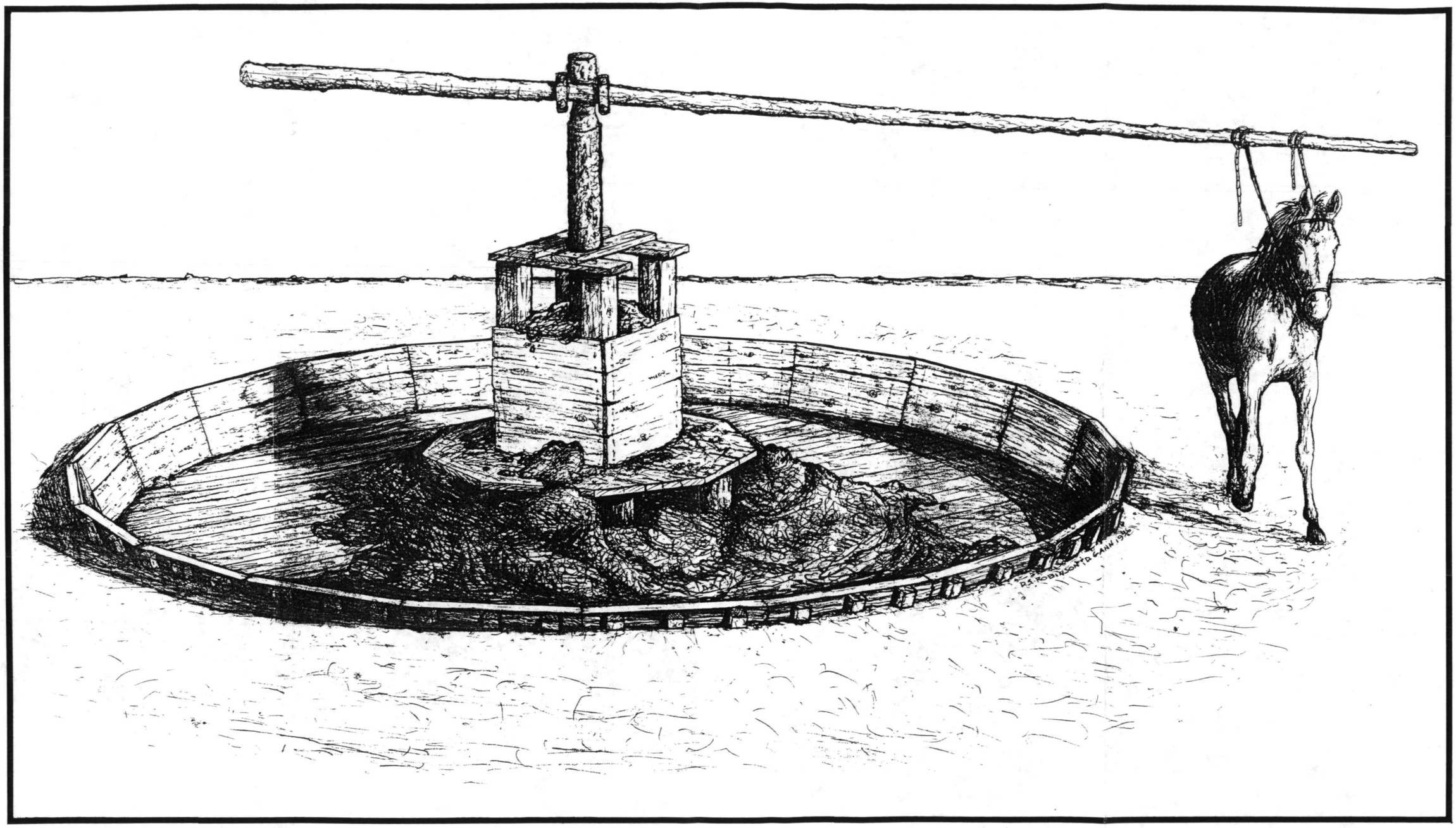


Figure 40. Reconstruction of the Berry horse powered mill

CHAPTER VI

SUMMARY AND CONCLUSIONS

Introduction

The current investigations were designed to mitigate the effect of relocation of utilities and construction of the Ravens' football stadium on the Pawley kiln (18BC88) and the Berry Brick Mill (18BC89). These sites had been identified during previous investigations, conducted in 1989-1990. Recommendations at that time included further investigation of these features, in the event that the football stadium was constructed. Subsequently, with the development of plans for the football stadium, a data recovery plan was designed for these two sites, in accordance with State and Federal standards and guidelines. The archeological mitigation was devised to entail archival investigations, mechanical removal of overlying paving and filling materials; manual removal of fill materials within the features; and manual excavation and recordation of remaining features or deposits.

The Pawley Stoneware Kiln (18BC88)

Four general research questions were proposed in the original research design for investigations at the Pawley Kiln site. Two questions dealt with additional archival background concerning Mr. Pawley's retail or manufacturing operations, and the local or regional market in which he operated. The remaining two questions dealt with physical evidence of the operation of the kiln and its products. These addressed attributes of the site or the structure, and details from vessel wasters and kiln furniture of manufacture techniques, form and decoration.

It was expected that additional archival and comparative information could be gathered that would provide city-wide and regional contexts for small-scale, non-mechanized stoneware manufacturing in the first half of the nineteenth century. Comparative research was intended to focus on differences and similarities between the technological process employed at the Pawley kiln

and other similar operations for which documentation was available. Proposed archival resources included pamphlets and advertisements, census and tax records. Subsequent research revealed that although some comparative archeological data was available through the Baltimore Center for Urban Archaeology, no complete or thorough studies for other small-scale stoneware pottery operations were readily available. Some collections exist, but no systematic evaluation or study of those collections has been completed. Therefore without extensive research and evaluation, beyond the intended scope of this project, comparative information on the products and manufacturing techniques of contemporary stoneware potters in Baltimore was not readily available. As a result, comparative information for manufacturing technique and products was used from other regional potters for the same time frame. These included the Wilkes Street operation in Alexandria, Virginia, and the Shenandoah Pottery in Strasburg, Va.

In addition, it was expected that further research would provide more detailed information concerning the extent of Mr. Pawley's operations, and the markets for the products of the kiln. Archival sources were to include tax and census records, as well as City directories. Subsequent research failed to produce much new information concerning Mr. Pawley's business interests. He apparently did not advertise, and there are few detailed records of his business dealings. As a result, mitigations focused on documenting the details of construction and manufacturing techniques evident in the structural remains of the kiln.

Field investigations consisted of completing the excavation of the kiln base, and examination of adjacent areas for evidence of related structures and features. The remaining half of the ca. 3 m diameter kiln was hand excavated using a series of three 2 x 2 m blocks. The interior of the kiln contained little soil; the fill was composed primarily of broken stoneware kiln furniture and vessel wasters. A typology of kiln furniture was developed based on earlier investigations; kiln furniture was sorted according to that typology and counted in the field; a sample of previously documented types, and new forms was retained. All vessel wasters were retained for analysis.

In addition, the 10 x 20 m area immediately south of the kiln, between Russell Street and the parking lot, was examined for features or deposits related to the kiln. Additional intact features

were present, and a strategy for testing and sampling those resources was developed in consultation with the Maryland Historical Trust and the Maryland Stadium Authority. This strategy was composed of hand excavation and recordation of a portion of each feature, following standard excavation procedures.

The results of field investigations and analysis of the vessel wasters and kiln furniture provided a great deal of useful information concerning manufacturing techniques, vessel form, and decoration. Consequently, the analysis and investigations focused on this aspect of the kiln site. Three classes of materials were retained from the kiln site. The first was a sample of the materials used to construct the kiln itself. Since there were no extant wooden or metal components of this structure, this sample was composed solely of fragments of the bricks used for construction.

The kiln was identified as a brick bottle or updraft kiln, common to early urban potteries. The kiln was constructed with approximately the bottom two feet of the structure below ground, and two fire boxes on opposite sides. These apparently were closed with cast iron doors, and may have had some type of protective roof or covering supported by wooden posts. Access to the kiln for filling and firing was through these fire boxes. Some kilns were constructed with interior dividers or retaining walls to better direct the flow of heat in the kiln. Mr. Pawley's kiln included a channel that circled the interior perimeter, as well as a central channel that crossed the center of the structure, from one opening to the other. There is no evidence that fuel or fire was placed directly in this area; this interior flue system may have aided in controlling and directing the flow of heat from the exterior fire boxes. The interior channels of the base of the kiln were filled with vessel wasters and kiln furniture. This deposit was partially primary, originating during operation of the kiln; and partially secondary, redeposited after the kiln was dismantled and filled.

The stoneware vessels and kiln furniture from the deposits in and around the kiln comprised the second, major class of cultural materials from the site. Kiln furniture was sorted and counted on site, and a sample was retained. Samples of previously undocumented forms were retained. Analysis of this class of artifacts indicated that although the potters at the Pawley operation were using saggers to separate some of the larger, narrow-necked vessels such as jugs and bottles, the

larger number of separators indicated that these were used to separate larger vessels such as crocks and jars in the kiln. Saggers were used for firing flatwares, and small serving wares, as well as for separating larger hollowares in the kiln. It is unclear whether the potter was producing small vessel forms other than bottles. Probably the saggers were used to separate larger bottles and jugs in the kiln. These were placed upside down over the neck and handle of jugs or bottles, and another vessel was placed on the flat top. Most relatively intact sagger fragments from the Pawley kiln included a hand molded roll of clay, heavily salted and sanded, and placed between the rim of the sagger and the shoulder of the vessel. This was done in an effort to promote even glazing, and to eliminate defacing the exterior glaze with rings or scars. The vastly larger quantity of separators may reflect the practice of firing more larger vessels such as 2 and 3 gallon crocks and jars, and fewer smaller vessels such as small bottles, pots, cups, or mugs. These vessels could be stacked in the kiln, with separators fashioned on the spot to keep them in place and to prevent the individual vessels from shifting during firing.

Vessel wasters were included in this class of materials from the site. All vessel wasters were retained and analyzed on several levels to acquire as much information as possible concerning materials, manufacture, form, function, and decoration. Analysis focused on determination of the form of vessels represented by the wasters. The previous catalogue of vessel forms was used as a basis for further development of a typology, and the accuracy of the previous analysis was checked. Vessel decoration also was analyzed, in conjunction with data on decorative motifs from the previous study.

Evidence of manufacture techniques revealed that all of the products of the Pawley operation were wheel thrown, and hand molded. Seven distinct vessel forms were produced: bottles, jars, jugs, crocks, flasks, pans or bowls, and pitchers. Bottles were produced in a variety of sizes, while other forms were present only in one or two sizes. Crocks, jugs and jar examples were noted in 2 and 3 gallon sizes.

Previous analysis of decorative techniques had indicated that the potters at the Pawley kiln were using a basic floral decoration on all large vessels, including pans, jars, crocks and pitchers.

Current analysis has shown that some larger bottle forms also were decorated with a debased form of the tulip motif that either was hastily applied or intentionally simplified.

The third class of materials from the kiln site comprised non-industrial artifacts that reflected either earlier, contemporary, or later domestic occupation of the site. The brick foundations, features, and material culture from the units not related directly to the kiln reflect the later era of development and combined use of space. In the mid-nineteenth century, the character of the neighborhood began to change from the predominantly upper middle class, residential pattern that had predominated through the first half of the century, to working class/commercial. Where single family homes had predominated, these were replaced increasingly by multi-family dwellings. Large single-dwelling lots were replaced by increasing subdivision, rowhouse construction, and the development of alley dwellings on the interior of the blocks.

After 1850, most of the residents of the immediate area of the Pawley property worked in a variety of industrial occupations, and rented their homes. Residents included both African American and white residents; whites primarily were first or second generation immigrants from Northern and Western Europe (U.S. Census 1900, 1910). The materials from the features and excavation units also reflected the economic nature of the neighborhood. These included a variety of glasswares and ceramic types typical for urban contexts in the late nineteenth and early twentieth centuries.

Berry Brick Mill (18BC88)

Three research questions were presented in the original work plan for investigations of the mill site. One of these questions concerned archival data about the Berry Brick Company and the market in which it operated. Additional archival research indicated that the contextual information compiled for the original investigations in 1989-1990, amounted to the most complete data concerning the Berry operations available, without extensive research into primary documentation. As a result, investigations focused on documentation of the physical remains of the mill itself, and

analysis and interpretation of construction data that related to the remaining two research questions. These pertained to brickmaking technology and brickmaking in Baltimore.

The principal goal of investigations was to record the remaining wooden structure in place, paying particular attention to the details of its design, and materials and methods of construction. To document the mill's overall dimensions, and record the configuration of individual timbers, more than 1,000 measurements were recorded, and 264 photographs were taken. As detailed in the methods chapter, the overlying paving and fill materials were removed mechanically, to expose the wooden structure. Once exposed in its entirety, it was apparent that portions of the circular wooden structure had been impacted by later construction. These impacts included: a pipe trench that extended diagonally across a portion of the northeastern quadrant of the structure; and, a stone foundation wall that intersected the extreme northern arc of the circle.

Once the details of the planking floor had been thoroughly documented, the fragmentary planking on the western half of the structure was removed, exposing the wood frame subfloor. A geometrically complex sub-floor platform was present beneath the planking. This portion of the feature was constructed of rough-hewn logs set on a prepared ground of fine sand. The lower surface of some of these timbers exhibited evidence of having been hand hewn, and reused (some were notched). The overlying platform was fastened to these timbers using 25 cm long, machine cut, hand finished spikes (ca. 1840).

Analysis of field data revealed that the existing feature is the remains of a large, shallow, round tub, measuring 8.44 m in diameter and 50 cm deep, with a roughly circular 2.40 m diameter opening at its center. The floor of the tub was composed of circular-sawn pine boards. A slightly raised lip is present around the central opening and the exterior edge; created intentionally as part of construction or the result of use-wear. The locations and dimensions of the uprights and vertical planking indicated that the floor was encircled by a low, outward-flaring wall constructed of a series of short, trapezoidal sections. This feature would have had an upright, central mechanism for mixing raw clay with grog. This mechanism would have been powered by a horse or mule hitched to a sweep. Outside of this information specific to the configuration, construction of the mill, little

archeological data was available concerning the products, production techniques, site plan or layout. Later landscape modifications and constructions have effectively isolated the feature.

Recommendations

These investigations have recorded to the extent possible the physical attributes of the Pawley Kiln and the Berry Brick Mill, along with as much detailed information as possible concerning the form, decoration, and methods of manufacture for the stoneware produced at the Pawley kiln. Additional research concerning the larger pottery and brick industries in Baltimore, the specific operations of both the Pawley retail outlets and the Berry manufacturing operations, would add to the comparative database for the materials and products of these two manufacturers, and the mid-nineteenth century context in which they functioned. These types of studys require extensive analysis of collections and primary records research, but may be appropriate thesis and dissertation topics.

Public Interpretation

Public interpretation of the results of investigations are a State requirement for mitigations. Several approaches to public interpretation have been suggested for use upon completion of the field investigations. These include the preparation of newspaper articles, posters or exhibits for display at the Stadium, and the preparation of pamphlets. The most effective approach for this stage of the mitigation would be the preparation of a newspaper article that presents some of the historical background, and summarizes the methods and results of field investigations.

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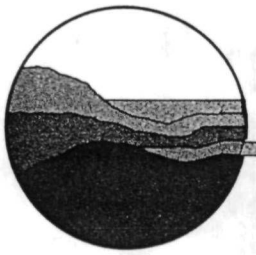
Many individuals devoted a great deal of time to assure that the field investigations were carried out smoothly and efficiently. Mr. Phil Cohen, Stadium Engineer, and Mr. Allen Smith, Project Superintendent provided invaluable logistical assistance. Mr. Nolan Rogers, Tour Director showed a great deal of interest in the history and development of both the kiln and the mill. Their assistance contributed to the successful completion of our field investigations.

Dr. R. Christopher Goodwin served as Principal Investigator, and supervised all aspects of this project; Suzanne L. Sanders, M.A., served as Project Manager. The historic context was prepared by Ms. Martha Williams, M.A., M.Ed. Ms. Ellen Saint Onge, M.A., supervised archeological field investigations, and assisted in preparation of the draft report. Laboratory analysis was supervised by Theresa Reimer. Graphics for the report were prepared by Mr. Douglas Gann. Graphics production was supervised by Augustine Fahey. April Fehr, M.A. edited the report, and it was produced by Sandi Castle.

APPENDIX I

ARCHEOLOGICAL SITE FORMS

MARYLAND ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM



Maryland Department of Natural Resources
Division of Archeology

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218

Site Number 18 BC89

(Shaded areas are for Division of Archeology use only)

A. Designation

1. County: Baltimore

2. Site Number:

3. Site Name: J.S. Berry Brick Mill

4. Site Type (check all applicable):
   - ____ Prehistoric
   - X Historic
   - ____ Unknown

5. Maryland Archeological Research Unit Number: 14 Patapsco back-middle drainage

B. Location

6. USGS 7.5' Quad-rangle(s): Baltimore East
   (Photocopy section of quad(s) on page 4 and mark site location)

7. UTM Coordinates at Center of Site Zone:

8. Easting:

9. Northing:

10. Physiographic Province (check one):
    - ____ Allegheny Plateau
    - ____ Ridge and Valley
    - ____ Great Valley
    - ____ Blue Ridge
    - ____ Lancaster/Frederick Lowland
    - X Eastern Piedmont
    - ____ Western Shore Coastal Plain
    - ____ Eastern Shore Coastal Plain

11. Nearest Water Source: Middle branch of Patapsco River ____ Order

12. 2nd Nearest Water Source: ____ Order

13. 3rd Nearest Water Source: ____ Order

14. 4th Nearest Water Source: ____ Order

BASIC DATA FORM

C. Environmental Data

15. Closest Surface Water Type (check all applicable):

____ Ocean	____ Freshwater Stream/River
_X_ Estuarine Bay/ Tidal River	____ Freshwater Swamp
____ Tidal or Marsh	____ Lake or Pond
	____ Spring

16. Distance from closest surface water: 304.8 meters (or 1000 feet)

17. SCS Typology:

18. Topographic Settings (check all applicable):

____ Floodplain	____ Hilltop/Bluff
_X_ Interior Flat	____ Upland Flat
_X_ Terrace	____ Ridgetop
____ Low Terrace	____ Rockshelter/Cave
____ High Terrace	____ Unknown
____ Hillslope	____ Other:

19. Slope:

20. Elevation: 3.04 meters (or 10 feet) above sea level

21. Land use at site when last field checked: June 1996 Date

(check all applicable)

____ Plowed/Tilled	____ Extractive
____ No-Till	____ Military
____ Wooded/Forested	____ Recreational
____ Logging/Logged	____ Residential
____ Underbrush/Overgrown	____ Ruin
____ Pasture	____ Standing Structure
____ Cemetery	____ Transportation
____ Commercial	____ Unknown
____ Educational	_X_ Other: Industrial/Construction

22. Condition of Site (check all applicable): _____ Date

____ UNDISTURBED	DESTROYED	____ UNKNOWN
	____ minor (0-10%)	
DISTURBED	____ moderate (10-60%)	
____ Plowed	_X_ major (60-99%)	
____ Eroded	____ total (100%)	
____ Graded/Contoured	____ % unknown	
____ Collected		
____ Vandalized		
____ Dredged		
____ Other:		

23. Additional Comments on Environment:

D. Description

24. Site Type A (check all applicable):

PREHISTORIC
_____ Lithics
_____ Ceramics
_____ Shell Midden
_____ Unknown
_____ Other:
_____

HISTORIC
_____ Cemetery
Domestic:
_____ urban
_____ rural
_____ Educational
Industrial:
X urban
_____ rural
_____ Military
_____ Religious
_____ Water Transportation
_____ Unknown
X Other:
Brick mill

_____ UNKNOWN

25. Site Type B (check one):

X Terrestrial _____ Underwater _____ Both

26. Cultural Affiliation (check all applicable):

PREHISTORIC
_____ Unknown

_____ Paleoindian
_____ Archaic
_____ Early Archaic
_____ Middle Archaic
_____ Late Archaic
_____ Woodland
_____ Early Woodland
_____ Middle Woodland
_____ Late Woodland

_____ CONTACT

HISTORIC
_____ Unknown

17th century
_____ 1630-1675
_____ 1675-1720
18th century
_____ 1720-1780
_____ 1780-1820
19th century
_____ 1820-1860
X 1860-1900
20th century
X 1900-1930
X post 1930

_____ UNKNOWN

27. State Plan Themes: _____

28. Site length: 42.67 meters (or 140 feet)

29. Site width: 48,76 meters (or 160 feet)

30. Is site confined to plowzone?
_____ Yes
X No
_____ Unknown

31. Does site have subsurface integrity?
X Yes
_____ No
_____ Unknown

BASIC DATA FORM

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow.

E. **Support Data** (Use additional sheets if needed)

32. Accompanying Data Form(s):

_____ Prehistoric
__X__ Historic
_____ Submerged
_____ Shipwreck

33. Ownership:

_____ Private
__X__ Public
_____ Unknown

34. Owner: Maryland Stadium Authority
Address:
Phone: Date:

35. Tenant: Baltimore Orioles
Address:
Phone: Date:

36. Known Investigations: Archeological Survey and Evaluation

37. Reports (Author & year): Archeological and Architectural Investigations at Camden Yards, Baltimore, Maryland, Sanders et al 1992

38. Other Records?

__X__ Yes
_____ No
_____ Unknown

39. If YES, type and location: Previous Archeological Data
Maryland Historical Trust

40. Collections?

__X__ Yes
_____ No
_____ Unknown

41. If YES, give owner and location: Maryland Stadium Authority
Maryland Historical Trust

42. Artifact Conservation?

_____ Yes
_____ Partial
__X__ No
_____ Unknown

43. Maryland Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
__X__ Not eligible
_____ Insufficient data

44. National Register Status:

_____ Listed on register
_____ Nomination pending
_____ Determined eligible (formal)
_____ Considered eligible (consensus)
__X__ Not eligible
_____ Insufficient data

45. Informant: Suzanne Sanders
Address: R. Christopher Goodwin & Associates, Inc.
Phone: 241 East Fourth Street, Suite 100, Frederick, Maryland Date: _____
301-694-0428

46. Site visited by: Suzanne Sanders
Address: R. Christopher Goodwin & Associates, Inc.
Phone: 241 East Fourth Street, Suite 100, Frederick, Maryland Date: _____
301-694-0428

47. Form filled out by: Suzanne Sanders
Address: R. Christopher Goodwin & Associates, Inc.
Phone: 241 East Fourth Street, Frederick, Maryland 21701 Date: _____
301-694-0428

48. Additional Comments:

F. For Division of Archeology Use Only

49. Form transcribed by: _____ 50. Date: _____
51. Form checked by: _____
52. Entered on computer by: _____ 53. Date: _____
54. Form updated by: _____ 55. Date: _____

MARYLAND ARCHEOLOGICAL SITE SURVEY: HISTORIC DATA FORM

Site Number 18 BC89

(Shaded areas are for Division of Archeology use only)

1. Site Class (check all applicable, check at least one from each group):

a. ____domestic
X industrial
____transportation
____military
____sepulchre
____unknown

b. X urban
____rural
____unknown

c. standing structure:
____yes
X no
____unknown

d. above-grade/visible ruin:
____yes
X no
____unknown

2. Site Type (check all applicable):

____artifact concentration
____possible structure
____post-in-ground structure
____frame structure
____masonry structure
____farmstead
____plantation
____townsite
X mill (specify: brick pug mill)
____raceway
____quarry
____furnace/forge
____other industrial (specify):
____road/railroad
____wharf/landing
____bridge
____ford
____battlefield
____military fortification
____military encampment
____cemetery
____unknown
____other:

3. Ethnic Association:

____Native American
____Afroamerican
____Angloamerican
____other Euroamerican
(specify):
____Hispanic
____Asian-American
X unknown
____other:

4. Categories of material remains present (check all applicable):

____ceramics
____bottle/table glass
____other kitchen artifacts
X architecture
____furniture
____arms
____clothing
____personal items
____tobacco pipes
____activity items
____human skeletal remains
____faunal remains
____floral remains
____organic remains
____unknown
____other:

5. Diagnostics (choose from manual and give number recorded or observed):

cut/wrought nails
wooden structural ruins

6. Features present:
   - [X] yes
   - [ ] no
   - [ ] unknown

7. Types of features present:
   - [ ] construction feature
   - [ ] foundation
   - [ ] cellar hole/storage cellar
   - [ ] hearth/chimney base
   - [ ] posthole/postmold
   - [ ] paling ditch/fence
   - [ ] privy
   - [ ] well/cistern
   - [ ] trash pit/dump
   - [ ] sheet midden
   - [ ] planting feature
   - [ ] road/drive/walkway
   - [ ] depression/mound
   - [ ] burial
   - [ ] railroad bed
   - [ ] earthworks
   - [ ] raceway
   - [ ] wheel pit
   - [ ] unknown
   - [X] other: wooden mill deck

8. Method of sampling (check all applicable):
   - [ ] non-systematic surface search
   - [ ] systematic surface collection
   - [ ] non-systematic shovel test pits
   - [ ] excavation units
   - [X] mechanical excavation

   extent/nature of excavation: 100% exposure and recordation of remaining wooden structure

9. Flotation samples collected:
   - [ ] yes
   - [X] no
   - [ ] unknown

   analyzed:
   - [ ] yes, by
   - [ ] no
   - [ ] unknown

10. Soil samples collected:
   - [ ] yes
   - [X] no
   - [ ] unknown

   analyzed:
   - [ ] yes, by
   - [ ] no
   - [ ] unknown

11. Other analyses (specify):

12. Additional Comments:

13. Form filled out by: Suzanne Sanders
    Address/Affiliation: R. Christopher Goodwin & Assoc., Inc. 241 E. 4th St., Ste. 100 Frederick, Maryland 21701
    Date: November 26, 1996

For Division of Archeology Use Only

14. Form transcribed by: 15. Date:
16. Form checked by:
17. Entered on computer by: 18. Date:
19. Form updated by: 20. Date:

MARYLAND ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Maryland Department of Natural Resources
Division of Archeology

Maryland Geological Survey
2300 St. Paul Street
Baltimore, Maryland 21218

Site Number 18 BC88 Updated

(Shaded areas are for Division of Archeology use only)

A. Designation

1. County: Baltimore

2. Site Number: _____

3. Site Name: Pawley Stoneware Kiln

4. Site Type (check all applicable):
   _____ Prehistoric
   X Historic
   _____ Unknown

5. Maryland Archeological Research Unit Number: 14-Patapsco-Back Middle Drainage

B. Location

6. USGS 7.5' Quad-rangle(s): Baltimore East
   (Photocopy section of quad(s) on page 4 and mark site location)

7. UTM Coordinates at Center of Site Zone: _____

8. Easting: _____

9. Northing: _____

10. Physiographic Province (check one):
    _____ Allegheny Plateau
    _____ Ridge and Valley
    _____ Great Valley
    _____ Blue Ridge
    _____ Lancaster/Frederick Lowland
    X Eastern Piedmont
    _____ Western Shore Coastal Plain
    _____ Eastern Shore Coastal Plain

11. Nearest Water Source: Middle Branch of Patapsco River _____ Order

12. 2nd Nearest Water Source: _____ _____ Order

13. 3rd Nearest Water Source: _____ _____ Order

14. 4th Nearest Water Source: _____ _____ Order

BASIC DATA FORM

C. Environmental Data

15. Closest Surface Water Type (check all applicable):

- ____ Ocean
- _X_ Estuarine Bay/ Tidal River
- ____ Tidal or Marsh
- ____ Freshwater Stream/River
- ____ Freshwater Swamp
- ____ Lake or Pond
- ____ Spring

16. Distance from closest surface water: 304.8 meters (or 1000 feet)

17. SCS Typology:

18. Topographic Settings (check all applicable):

- ____ Floodplain
- _X_ Interior Flat
- _X_ Terrace
- ____ Low Terrace
- ____ High Terrace
- ____ Hillslope
- ____ Hilltop/Bluff
- ____ Upland Flat
- ____ Ridgetop
- ____ Rockshelter/Cave
- ____ Unknown
- ____ Other: _____

19. Slope:

20. Elevation: 3.04 meters (or 10 feet) above sea level

21. Land use at site when last field checked: _____ Date
(check all applicable)

- ____ Plowed/Tilled
- ____ No-Till
- ____ Wooded/Forested
- ____ Logging/Logged
- ____ Underbrush/Overgrown
- ____ Pasture
- ____ Cemetery
- ____ Commercial
- ____ Educational
- ____ Extractive
- ____ Military
- ____ Recreational
- ____ Residential
- ____ Ruin
- ____ Standing Structure
- ____ Transportation
- ____ Unknown
- _X_ Other: Construction/Industrial

22. Condition of Site (check all applicable): _____ Date

____ UNDISTURBED

DISTURBED

- ____ Plowed
- ____ Eroded
- _X_ Graded/Contoured
- ____ Collected
- ____ Vandalized
- ____ Dredged
- ____ Other: _____

DESTROYED

- ____ minor (0-10%)
- _X_ moderate (10-60%)
- _X_ major (60-99%)
- ____ total (100%)
- ____ % unknown

____ UNKNOWN

23. Additional Comments on Environment:

D. Description

24. Site Type A (check all applicable):

PREHISTORIC
_____ Lithics
_____ Ceramics
_____ Shell Midden
_____ Unknown
_____ Other:
_____

HISTORIC
_____ Cemetery
Domestic:
_____ urban
_____ rural
_____ Educational
Industrial:
_____ urban
__X__ rural
_____ Military
_____ Religious
_____ Water Transportation
_____ Unknown
_____ Other:
_____

_____ UNKNOWN

25. Site Type B (check one):

__X__ Terrestrial _____ Underwater _____ Both

26. Cultural Affiliation (check all applicable):

PREHISTORIC
_____ Unknown

_____ Paleoindian
_____ Archaic
_____ Early Archaic
_____ Middle Archaic
_____ Late Archaic
_____ Woodland
_____ Early Woodland
_____ Middle Woodland
_____ Late Woodland

_____ CONTACT

HISTORIC
_____ Unknown

17th century
_____ 1630-1675
_____ 1675-1720
18th century
_____ 1720-1780
_____ 1780-1820
19th century
__X__ 1820-1860
__X__ 1860-1900
20th century
_____ 1900-1930
_____ post 1930

_____ UNKNOWN

27. State Plan Themes: Urban/Industrial

28. Site length: 42.67 meters (or 140 feet)

29. Site width: 48.67 meters (or 160 feet)

30. Is site confined to plowzone?
_____ Yes
__X__ No
_____ Unknown

31. Does site have subsurface integrity?
__X__ Yes
_____ No
_____ Unknown

BASIC DATA FORM

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow.

E. Support Data (Use additional sheets if needed)

32. Accompanying Data Form(s):

_____ Prehistoric
_X_ Historic
_____ Submerged
_____ Shipwreck

33. Ownership:

_____ Private
_X_ Public
_____ Unknown

34. Owner: Maryland Stadium Authority
Address: The Warehouse at Camden Yards 333 West Camden Street
Phone: 410-333-1560 Date: _____

35. Tenant: _____
Address: _____
Phone: _____ Date: _____

36. Known Investigations: _____

37. Reports (Author & year): Archeological Survey/Evaluation Archeolgoicl and Architectural Investigations at Camden Yards, Baltimore Maryland - Sanders et. al. 1992

38. Other Records?

_X_ Yes
_____ No
_____ Unknown

39. If YES, type and location: Previous Archeological Maryland Historical Trust

40. Collections?

_X_ Yes
_____ No
_____ Unknown

41. If YES, give owner and location: Maryland Stadium Authority Maryland Historical Trust

42. Artifact Conservation?

_____ Yes
_____ Partial
_X_ No
_____ Unknown

43. Maryland Register Status:
- ____ Listed on register
- ____ Nomination pending
- ____ Determined eligible (formal)
- ____ Considered eligible (consensus)
- ____ Not eligible
- __X__ Insufficient data

44. National Register Status:
- ____ Listed on register
- ____ Nomination pending
- ____ Determined eligible (formal)
- ____ Considered eligible (consensus)
- ____ Not eligible
- __X__ Insufficient data

45. Informant: R. Christopher Goodwin & Associates, Inc.
Address: 241 East Fourth Street, Suite 100
Phone: Frederick, Maryland 21701 Date: ____
301-694-0428

46. Site visited by: Suzanne Sanders
Address: R. Christopher Goodwin & Associates, Inc.
Phone: 214 East Fourth Street, Suite 100, Frederick, Maryland Date: ____
301-694-0428

47. Form filled out by: Suzanne Sanders
Address: 241 East Fourth Street, Suite 100
Phone: Frederick, Maryland 21701 Date: ____
301-694-0428

48. Additional Comments:

F. For Division of Archeology Use Only

49. Form transcribed by: ____ 50. Date: ____
51. Form checked by: ____
52. Entered on computer by: ____ 53. Date: ____
54. Form updated by: ____ 55. Date: ____

MARYLAND ARCHEOLOGICAL SITE SURVEY: HISTORIC DATA FORM

Site Number 18BG88 Updated

(Shaded areas are for Division of Archeology use only)

1. Site Class (check all applicable, check at least one from each group):

a. ___ domestic
x industrial
___ transportation
___ military
___ sepulchre
___ unknown

b. x urban
___ rural
___ unknown

c. standing structure:
x yes
___ no
___ unknown

d. above-grade/visible ruin:
___ yes
x no
___ unknown

2. Site Type (check all applicable):

___ artifact concentration
___ possible structure
___ post-in-ground structure
___ frame structure
x masonry structure
___ farmstead
___ plantation
___ townsite
___ mill (specify: _____)
___ raceway
___ quarry
___ furnace/forge

x other industrial (specify):
Kiln
___ road/railroad
___ wharf/landing
___ bridge
___ ford
___ battlefield
___ military fortification
___ military encampment
___ cemetery
___ unknown
___ other:
_____

3. Ethnic Association:

___ Native American
___ Afroamerican
___ Angloamerican
___ other Euroamerican
(specify):
_____

___ Hispanic
___ Asian-American
x unknown
___ other:
_____

4. Categories of material remains present (check all applicable):

x ceramics
x bottle/table glass
x other kitchen artifacts
x architecture
___ furniture
___ arms
___ clothing
___ personal items

x tobacco pipes
___ activity items
___ human skeletal remains
x faunal remains
___ floral remains
___ organic remains
___ unknown
x other:
industrial

5. Diagnostics (choose from manual and give number recorded or observed):

cut nails
domestic gray stoneware
pearlware
whiteware

red earthenware

6. Features present:
   - [X] yes
   - [ ] no
   - [ ] unknown

7. Types of features present:
   - [ ] construction feature
   - [X] foundation
   - [ ] cellar hole/storage cellar
   - [ ] hearth/chimney base
   - [X] posthole/postmold
   - [ ] paling ditch/fence
   - [ ] privy
   - [ ] well/cistern
   - [ ] trash pit/dump
   - [X] sheet midden
   - [ ] planting feature
   - [ ] road/drive/walkway
   - [ ] depression/mound
   - [ ] burial
   - [ ] railroad bed
   - [ ] earthworks
   - [ ] raceway
   - [ ] wheel pit
   - [ ] unknown
   - [X] other: kiln foundation

8. Method of sampling (check all applicable):
   - [ ] non-systematic surface search
   - [X] systematic surface collection
   - [X] non-systematic shovel test pits
   - [X] excavation units
   - [X] mechanical excavation

   extent/nature of excavation: Site area mechanically cleared, 10 1x1m excavation walls, and feature sampling.

9. Flotation samples collected:
   - [ ] yes
   - [X] no
   - [ ] unknown

   analyzed:
   - [ ] yes, by _____
   - [ ] no
   - [ ] unknown

10. Soil samples collected:
    - [ ] yes
    - [X] no
    - [ ] unknown

    analyzed:
    - [ ] yes, by _____
    - [ ] no
    - [ ] unknown

11. Other analyses (specify): _____

12. Additional Comments:

13. Form filled out by: Suzanne Sanders
    Address/Affiliation: R. Christopher Goodwin & Associates, Inc., 241 E. 4th. St., Ste.100 Frederick, Maryland
    Date: November 26, 1996

For Division of Archeology Use Only

14. Form transcribed by: _____ 15. Date: _____
16. Form checked by: _____
17. Entered on computer by: _____ 18. Date: _____
19. Form updated by: _____ 20. Date: _____

APPENDIX II

ARTIFACT INVENTORY

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
**	GENERAL TRENCH					SURFACE				
543	FLAKE	QUARTZ	UNMODIFIED	SECONDARY					1	
** Subtotal **									1	
**	SQUARE A GENERAL				COLLECTION	SURFACE				
531	Architecture	Ceramic	Miscellaneous	Sewerage/Drainage Pipe				MODERN, DISCARDED	1	
531	Kitchen	Glass	Machine Made Bottle	Light Green					1	1898-PRESENT
531	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
531	Industrial	Ceramic	Kiln	Sagger					2	
** Subtotal **									5	
**	SQUARE A & B GENERAL				COLLECTION	BACKDIRT				
530	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated			WASTER	BROWN GLAZE	2	1750-1900
530	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK	BLUE		WAVY LINES, MEND	2	1790-1900
530	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			BROWN INTERIOR	1	1750-1900
530	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER	POORLY FIRED	1	1750-1900
530	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE				1	
530	Industrial	Ceramic	Kiln	Separator			COIL		9	
530	Industrial	Ceramic	Kiln	Separator			RING		1	
530	Industrial	Ceramic	Kiln	Separator			TACO		1	
530	Industrial	Ceramic	Kiln	Sagger					1	
530	Industrial	Ceramic	Kiln	Slag					1	
530	Industrial	Ceramic	Kiln	Brick					1	
530	Personal	Ceramic	Tobacco Pipe	Red Clay Stem					1	

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
** Subtotal **									22	
** SQUARE B	GENERAL				COLLECTION	BACKDIRT				
509	Architecture	Glass	Architectural Element	Window Glass					6	
509	Miscellaneous	Synthetic	Miscellaneous	Plastic/Other				MODERN ,DISCARDED	2	
509	Industrial	Ceramic	Kiln	Separator			COIL		1	
** Subtotal **									9	
** SQUARE A			FEATURE	A-1	LEVEL 01	07-37CMBD				
571	Architecture	Glass	Architectural Element	Window Glass					1	
571	Architecture	Metal	Machine Cut Nail, Common	Fragment					2	1815-1890
571	Architecture	Metal	Unidentified	Nail					1	
571	Kitchen	Ceramic	Pearlware	Underglaze Blue Hand-Painted	RIM	BLUE			1	1779-1820
571	Kitchen	Ceramic	Pearlware	Underglaze Floral Polychrome	HOLLOWWARE	BROWN			1	1795-1815
571	Kitchen	Ceramic	Whiteware	Sponged	SAUCER RIM	RED			1	1830-1870+
571	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	2	1840-1900+
571	Kitchen	Glass	Blown in Mold	Dark Green					1	
571	Activities	Metal	Tool	Tool Handle				WOOD/IRON, LARGE KNIFE OR TOOL HANDLE	2	
** Subtotal **									12	
** SQUARE C	GENERAL				COLLECTION	BACKDIRT				
503	Architecture	Ceramic	Miscellaneous	Ceramic Fixture (plumbing)					1	
503	Architecture	Manufactured	Brick	Fragment				MACHINE MADE	1	

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
503	Architecture	Manufactured	Miscellaneous Building Material	Mortar					1	
503	Architecture	Metal	Wire Nail, Common	2-4"					1	POST 1890
503	Architecture	Metal	Construction Hardware	Gas/Plumbing Fixture				IRON PIPE	1	
503	Architecture	Metal	Construction Hardware	Gas/Plumbing Fixture				LEAD PIPE	1	
503	Architecture	Synthetic	Miscellaneous	Other				ASPHALT, MODERN, DISCARDED	1	
503	Kitchen	Glass	Blown in Mold	Aqua					1	
503	Kitchen	Glass	Davis Lip	Aqua					1	POST 1880's
503	Miscellaneous	Metal	Unidentified Object	Slag					1	
503	Industrial	Ceramic	Kiln	Sagger					2	
503	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
** Subtotal **									13	
** SQUARE C	CLEAN UP				LEVEL 03	70-78CMBD				
504	Architecture	Glass	Architectural Element	Window Glass					3	
504	Architecture	Manufactured	Brick	Fragment				MIXED CLAY	1	
504	Architecture	Manufactured	Miscellaneous Building Material	Mortar					1	
504	Architecture	Metal	Wire Nail, Common	2-4"					3	POST 1890
504	Architecture	Metal	Machine Cut Nail, Common	2-4"					2	1815-1890
504	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
504	Architecture	Metal	Machine Cut Nail, Common	< 2"					1	1815-1890
504	Clothing	Ceramic	Ceramic Clothing	Porcelain Button				1 PC., 4 HOLE	1	
504	Kitchen	Biological	Food Related	Bone				BIRD	4	
504	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	3	
504	Kitchen	Biological	Food Related	Unidentified Bone					2	
504	Kitchen	Biological	Shell	Oyster					4	
504	Kitchen	Biological	Shell	Clam					1	
504	Kitchen	Ceramic	Later Porcelain Type	Gilded	HOLLOWWARE	BLUE/RED/BLK		POSS. LID, VERY THICK	1	

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
504	Kitchen	Ceramic	Later Porcelain Type	Underglaze Hand-Painted, Hard		BLUE			2	
504	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE			10	1790-1900
504	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				6	1750-1900
504	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		3	1750-1900
504	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE				4	1750-1900
504	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	2	1750-1900
504	Kitchen	Ceramic	Ironstone	Gray Undecorated	PLATE				3	1813-1900+
504	Kitchen	Ceramic	Pearlware	Undecorated	HOLLOWWARE BASE				1	1779-1830
504	Kitchen	Ceramic	Pearlware	Underglaze Floral Polychrome	HOLLOWWARE	ORANGE			2	1795-1815
504	Kitchen	Ceramic	Slipware	Trailed w/Clear Glaze	MILK PAN				6	
504	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE				1	
504	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				7	1820-PRESENT
504	Kitchen	Ceramic	Whiteware	Shell-Edged	PLATE RIM	BLUE			1	1820-1860's
504	Kitchen	Ceramic	Yellow Ware	Dipped/Annular	HOLLOWWARE	BROWN			2	1840-1930's
504	Kitchen	Glass	Blown in Mold	Dark Green				"..12 1/2.."	1	
504	Kitchen	Glass	Blown in Mold	Aqua					1	
504	Kitchen	Glass	Table Glassware	Tumbler					1	
504	Kitchen	Glass	Table Glassware	Unidentified Tableglass					3	
504	Kitchen	Glass	Unidentifiable Bottle Glass	Green				FLAT	1	
504	Industrial	Ceramic	Kiln	Sagger					7	
504	Industrial	Ceramic	Kiln	Separator			COIL		21	
504	Personal	Metal	Personal Use	Key				SMALL BRASS KEY	1	

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
504	Personal	Stone	Personal Use	Slate Pencil					1	
504	Activities	Ceramic	Toy	Marble				BLUE & BROWN	1	
504	Activities	Metal	Miscellaneous Hardware	Other				ROUND BRASS BOX OR BELL	1	
** Subtotal **									117	
** SQUARE C	FILL OVER			FEATURE C-1	LEVEL 03	70-78CMBD				
505	Architecture	Glass	Architectural Element	Window Glass					19	
505	Architecture	Manufactured	Miscellaneous Building Material	Mortar					1	
505	Architecture	Manufactured	Miscellaneous Building Material	Mortar				LIME	2	
505	Architecture	Metal	Construction Hardware	Hinge				SMALL STRAP HINGE	1	
505	Architecture	Metal	Machine Cut Nail, Common	2-4"					1	1815-1890
505	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
505	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	5	
505	Kitchen	Biological	Food Related	Cut/Butchered Bone				LARGE MAMMAL	1	
505	Kitchen	Biological	Shell	Oyster				FRAGMENT	1	
505	Kitchen	Ceramic	Later Porcelain Type	Gilded	CUP RIM				1	
505	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	1	1750-1900
505	Kitchen	Ceramic	Whiteware	Undecorated	PLATE				2	1820-PRESENT
505	Kitchen	Ceramic	Whiteware	Polychrome Hand-Painted	HOLLOWWARE	RED			1	1820-PRESENT
505	Kitchen	Ceramic	Whiteware	Polychrome w/ Black Stem	BOWL	GREEN/BLACK			1	1820-PRESENT
505	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)					1	1840-1900+
505	Kitchen	Glass	Blown in Mold	Dark Green				"JOHN../NEW.."	1	
505	Kitchen	Glass	Blown in Mold	Aqua					4	
505	Kitchen	Glass	Non Machine Made Bottle	Dark Green					2	
505	Kitchen	Glass	Table Glassware	Unidentified Tableglass					2	

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
505	Kitchen	Glass	Unidentifiable Bottle Glass	Green					1	
505	Industrial	Ceramic	Kiln	Sagger					2	
505	Industrial	Ceramic	Kiln	Separator			COIL		5	
505	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
505	Personal	Ceramic	Tobacco Pipe	Ball Clay Bowl				W/STEM, 4/64	1	
505	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem				6/64	1	
** Subtotal **									59	
** SQUARE C	FILL OVER			FEATURE C-4	LEVEL 03	70-78CMBD				
506	Architecture	Glass	Architectural Element	Window Glass					1	
506	Architecture	Metal	Machine Cut Nail, Common	2-4"					1	1815-1890
506	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
506	Kitchen	Biological	Food Related	Cut/Butchered Bone				LARGE MAMMAL	4	
506	Kitchen	Biological	Shell	Oyster					1	
506	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE			1	1790-1900
506	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE		WASTER		1	1750-1900
506	Kitchen	Ceramic	Ironstone	Gray Undecorated	BOWL RIM				1	1813-1900+
506	Kitchen	Glass	Machine Made Bottle	Green					1	1898-PRESENT
506	Miscellaneous	Metal	Unidentified Object	Iron/Steel				FLAT FRAGMENT	1	
506	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
506	Industrial	Ceramic	Kiln	Separator			COIL		1	
** Subtotal **									15	
** SQUARE C		N0991.18	E0999.925	FEATURE C-2E	STRAT 1		09-15CMBD			
573	Architecture	Glass	Architectural Element	Window Glass					2	
573	Architecture	Manufactured	Brick	Fragment				MACHINE MADE	1	
573	Architecture	Manufactured	Miscellaneous Building Material	Plaster				SHELL, W/PAINT	1	

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
573	Architecture	Metal	Machine Cut Nail, Common	Fragment					2	1815-1890
573	Kitchen	Biological	Food Related	Bone				BIRD	4	
573	Kitchen	Biological	Food Related	Unidentified Bone					1	
573	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				1	1750-1900
573	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				1	1820-PRESENT
573	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	3	1840-1900+
573	Kitchen	Glass	Machine Made Bottle	Amber					2	1898-PRESENT
573	Kitchen	Glass	Machine Made Bottle	Clear					4	1898-PRESENT
573	Kitchen	Glass	Machine Made Bottle	Solarized					1	1898-PRESENT
573	Kitchen	Glass	Table Glassware	Unidentified Tableglass					2	
573	Industrial	Ceramic	Kiln	Separator			COIL		4	
573	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem				4/64, W/IRON OXIDE WASH	1	
573	Activities	Glass	Miscellaneous	Lamp Glass					3	
** Subtotal **									33	
** SQUARE C		N0991.18	E0999.925	FEATURE C-2E STRAT 2		15-18CMBD				
574	Architecture	Glass	Architectural Element	Window Glass					2	
574	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	1	1750-1900
574	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		2	1750-1900
574	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP				2	1750-1900
574	Kitchen	Ceramic	Whiteware	Blue Hand-Painted	RIM	BLUE			1	1820-PRESENT
574	Industrial	Ceramic	Kiln	Separator			COIL		5	
574	Personal	Ceramic	Tobacco Pipe	Molded Ball Clay Stem				5/64, RIBBED	1	

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
** Subtotal **									14	
** SQUARE C	N0991.18	E0999.925	FEATURE C-2E	STRAT 3	18-20CMBD					
575	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		1	1750-1900
575	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	1	1750-1900
575	Industrial	Ceramic	Kiln	Separator			COIL		2	
** Subtotal **									4	
** SQUARE C	N0991.18	E0999.925	FEATURE C-2W	STRAT 1	09-15CMBD					
576	Architecture	Glass	Architectural Element	Window Glass					1	
576	Architecture	Manufactured	Miscellaneous Building Material	Plaster				SHELL	1	
576	Architecture	Metal	Wire Nail, Common	Fragment					1	POST 1890
576	Architecture	Metal	Construction Hardware	Tack					1	
576	Clothing	Biological	Shell Clothing	Shell Button				FRAGMENTS	2	
576	Kitchen	Biological	Food Related	Bone				MAMMAL	9	
576	Kitchen	Biological	Food Related	Bone				RODENT	3	
576	Kitchen	Biological	Food Related	Unidentified Bone					7	
576	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	2	
576	Kitchen	Biological	Shell	Clam					1	
576	Kitchen	Glass	Blown in Mold	Clear					6	
576	Kitchen	Glass	Machine Made Bottle	Amber					1	1898-PRESENT
576	Miscellaneous	Metal	Unidentified Object	Iron/Steel					1	
576	Miscellaneous	Metal	Unidentified Object	Non-Ferrous Metal				LEAD	1	
576	Miscellaneous	Stone	Miscellaneous Stone	Coal Slag				DISCARDED	1	
576	Industrial	Ceramic	Kiln	Separator			COIL		2	

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
** Subtotal **									40	
** SQUARE C		N0991.18	E0999.925	FEATURE C-2W STRAT 2		15-18CMBD				
577	Architecture	Glass	Architectural Element	Window Glass					2	
577	Architecture	Metal	Machine Cut Nail, Common	> 4"					1	1815-1890
577	Architecture	Metal	Machine Cut Nail, Common	Fragment					5	1815-1890
577	Architecture	Metal	Unidentified	Nail					2	
577	Clothing	Metal	Miscellaneous	Snap					1	
577	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE			POORLY FIRED	1	1750-1900
577	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	2	1750-1900
577	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE		POORLY FIRED	1	1790-1900
577	Kitchen	Ceramic	Domestic Gray Stoneware	Alkaline Glaze	FLASK			BROWN INTERIOR	4	19TH-20TH C.
577	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE				2	1820-PRESENT
577	Kitchen	Ceramic	Whiteware	Blue Hand-Painted	HOLLOWWARE RIM	BROWN			1	1820-PRESENT
577	Kitchen	Ceramic	Whiteware	Shell-Edged	FLAT WARE RIM	BLUE			1	1820-1860's
577	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	2	1840-1900+
577	Miscellaneous	Stone	Miscellaneous Stone	Coal Slag				DISCARDED	1	
577	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
577	Industrial	Ceramic	Kiln	Separator			C-SHAPE		2	
577	Industrial	Ceramic	Kiln	Separator			COIL		22	
577	Industrial	Ceramic	Kiln	Separator			FRAGMENT		4	
577	Industrial	Ceramic	Kiln	Sagger					1	
577	Industrial	Ceramic	Kiln	Brick					1	

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
** Subtotal **									57	
** SQUARE C		N0991.18	E0999.925	FEATURE C-2W STRAT 3		18-20CMBD				
578	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
578	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	2	1750-1900
578	Kitchen	Ceramic	Whiteware	Polychrome Hand-Painted		BROWN			1	1820-PRESENT
578	Industrial	Ceramic	Kiln	Separator			COIL		2	
** Subtotal **									6	
** SQUARE C		N0991.3	E1000.75	FEATURE C-6E	LEVEL 02	13-14CMBD				
572	Industrial	Ceramic	Kiln	Brick					1	
** Subtotal **									1	
** SQUARE C	TU 01	N0988	E1001.95	STRAT 1	LEVEL 01	02-13CMBD				
512	Architecture	Metal	Machine Cut Nail, Common	< 2"					2	1815-1890
** Subtotal **									2	
** SQUARE C	TU 01	N0988	E1001.95	STRAT 2	LEVEL 01	08-18CMBD				
513	Architecture	Glass	Architectural Element	Window Glass					33	
513	Architecture	Metal	Wire Nail, Common	2-4"					2	POST 1890
513	Architecture	Metal	Wire Nail, Common	Fragment					2	POST 1890
513	Architecture	Metal	Machine Cut Nail, Common	Fragment					5	1815-1890
513	Architecture	Synthetic	Miscellaneous	Roofing Shingle, Tar Paper				W/PAINT	1	
513	Kitchen	Biological	Food Related	Cut/Butchered Bone				LARGE MAMMAL	2	
513	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	11	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
513	Kitchen	Biological	Food Related	Bone				BIRD	9	
513	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	5	
513	Kitchen	Biological	Food Related	Unidentified Bone				CALCINED	2	
513	Kitchen	Biological	Food Related	Unidentified Bone					2	
513	Kitchen	Biological	Shell	Oyster					6	
513	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK				2	1750-1900
513	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE			1	1790-1900
513	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		2	1750-1900
513	Kitchen	Ceramic	Creamware	Lighter Yellow					1	1762-1820
513	Kitchen	Ceramic	Pearlware	Undecorated	HOLLOWWARE				3	1779-1830
513	Kitchen	Ceramic	Pearlware	Underglaze Floral Polychrome	HOLLOWWARE	BROWN/ORANGE			2	1795-1815
513	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				5	1820-PRESENT
513	Kitchen	Ceramic	Whiteware	Undecorated	BASE				1	1820-PRESENT
513	Kitchen	Ceramic	Whiteware	Shell-Edged	RIM	BLUE			1	1820-1860's
513	Kitchen	Ceramic	Yellow Ware	Dipped/Annular	HOLLOWWARE	BLUE/WHITE			2	1840-1930's
513	Kitchen	Glass	Machine Made Bottle	Green					1	1898-PRESENT
513	Kitchen	Glass	Non Machine Made Bottle	Dark Green					7	
513	Kitchen	Glass	Tooled Lip	Aqua					1	c.1820-c.1920
513	Kitchen	Glass	Table Glassware	Unidentified Tableglass					4	
513	Kitchen	Glass	Melted Glass	Green					1	
513	Kitchen	Glass	Unidentifiable Bottle Glass	Clear					3	
513	Miscellaneous	Metal	Unidentified Object	Iron/Steel				FLAT FRAGMENTS	2	
513	Miscellaneous	Metal	Unidentified Object	Non-Ferrous Metal				FLAT FRAGMENTS	2	
513	Miscellaneous	Stone	Miscellaneous Stone	Slate					1	
513	Industrial	Ceramic	Kiln	Brick				LARGE FRAGMENT	1	
513	Industrial	Ceramic	Kiln	Separator			COIL		3	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
513	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
513	Industrial	Ceramic	Kiln	Sagger					2	
513	Personal	Biological	Grooming	Tortoise Shell Comb				FRAGMENT	1	
513	Personal	Ceramic	Tobacco Pipe	Ball Clay Bowl, Molded				RIBBED	1	
513	Activities	Glass	Miscellaneous	Lamp Glass					1	
** Subtotal **									132	
** SQUARE C	TU 01	N0988	E1001.95	STRAT 2	LEVEL 02	18-28CMBD				
514	Architecture	Glass	Architectural Element	Window Glass					8	
514	Architecture	Manufactured	Brick	Fragment				SMALL FRAGMENTS	2	
514	Architecture	Manufactured	Miscellaneous Building Material	Mortar					1	
514	Architecture	Metal	Wire Nail, Common	2-4"					3	POST 1890
514	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
514	Architecture	Synthetic	Miscellaneous	Roofing Shingle, Tar Paper				W/PAINT	3	
514	Kitchen	Biological	Kitchen Use	Nut/Seed/Pit				PIT	1	
514	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	10	
514	Kitchen	Biological	Food Related	Bone				BIRD	2	
514	Kitchen	Biological	Food Related	Unidentified Bone				CALCINED	3	
514	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	9	
514	Kitchen	Biological	Food Related	Unidentified Bone					19	
514	Kitchen	Biological	Food Related	Tooth				RODENT	1	
514	Kitchen	Biological	Shell	Oyster				FRAGMENT	1	
514	Kitchen	Biological	Shell	Clam				FRAGMENT	1	
514	Kitchen	Ceramic	Redware	Unglazed	HOLLOWWARE RIM				1	
514	Kitchen	Ceramic	Whiteware	Undecorated					1	1820-PRESENT
514	Kitchen	Glass	Machine Made Bottle	Amber				SMALL FRAGMENT, MODERN, DISCARDED	1	1898-PRESENT

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
514	Kitchen	Glass	Unidentifiable Bottle Glass	Clear					1	
514	Miscellaneous	Metal	Unidentified Object	Slag					3	
514	Miscellaneous	Metal	Unidentified Object	Iron/Steel				FLAT FRAGMENTS	2	
514	Industrial	Ceramic	Kiln	Separator			COIL		1	
514	Activities	Glass	Miscellaneous	Lamp Glass					2	
** Subtotal **									77	
** SQUARE C	TU 01	N0988	E1001.95	STRAT 2	LEVEL 03	28-38CMBD				
515	Architecture	Glass	Architectural Element	Window Glass					15	
515	Architecture	Manufactured	Brick	Fragment				FRAGMENT	1	
515	Architecture	Metal	Wire Nail, Common	< 2"					2	POST 1890
515	Architecture	Metal	Machine Cut Nail, Common	Fragment					3	1815-1890
515	Architecture	Metal	Machine Cut Nail, Common	2-4"					1	1815-1890
515	Clothing	Metal	Miscellaneous	Straight Pin					1	
515	Kitchen	Biological	Food Related	Tooth				PIG	1	
515	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	11	
515	Kitchen	Biological	Food Related	Bone				RODENT	5	
515	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	8	
515	Kitchen	Biological	Food Related	Fish Scale/Bone				SCALES	5	
515	Kitchen	Biological	Food Related	Unidentified Bone					24	
515	Kitchen	Biological	Food Related	Bone				BIRD	2	
515	Kitchen	Biological	Food Related	Unidentified Bone				BURNED	1	
515	Kitchen	Biological	Shell	Oyster				FRAGMENTS	3	
515	Kitchen	Biological	Shell	Clam				FRAGMENTS	1	
515	Kitchen	Ceramic	Whiteware	Undecorated	PLATE				2	1820-PRESENT
515	Kitchen	Ceramic	Yellow Ware	Dipped/Annular	BOWL	BROWN/WHITE			2	1840-1930's
515	Kitchen	Glass	Blown in Mold	Aqua					1	
515	Kitchen	Glass	Machine Made Bottle	Amber					2	1898-PRESENT
515	Kitchen	Glass	Machine Made Bottle	Clear					2	1898-PRESENT

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
515	Kitchen	Glass	Non Machine Made Base	Dark Green				PONTIL	1	
515	Miscellaneous	Metal	Unidentified Object	Iron/Steel				FLAT FRAGMENTS	5	
515	Miscellaneous	Stone	Miscellaneous Stone	Coal Slag				DISCARDED	2	
515	Industrial	Ceramic	Kiln	Separator			TACO		2	
515	Industrial	Ceramic	Kiln	Separator			FRAGMENT		1	
515	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem				FRAGMENT	1	
515	Activities	Metal	Tool	File				TRIANGULAR	1	
** Subtotal **									106	
** SQUARE C	TU 01	N0988	E1001.95	STRAT 2	LEVEL 04	38-54CMBD				
516	Architecture	Metal	Wire Nail, Common	< 2"					1	POST 1890
516	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
516	Kitchen	Biological	Food Related	Unidentified Bone					6	
516	Kitchen	Biological	Food Related	Tooth				PIG	1	
516	Kitchen	Glass	Machine Made Bottle	Clear					1	1898-PRESENT
** Subtotal **									10	
** SQUARE C	TU 01	N0988	E1001.95	FEATURE C-1 STRAT 4	LEVEL 01	38-54CMBD				
544	Architecture	Glass	Architectural Element	Window Glass					2	
544	Architecture	Metal	Wire Nail, Common	Fragment					3	POST 1890
544	Architecture	Metal	Machine Cut Nail, Common	< 2"					1	1815-1890
544	Architecture	Metal	Machine Cut Nail, Common	Fragment					5	1815-1890
544	Architecture	Metal	Unidentified	Nail					3	
544	Kitchen	Biological	Kitchen Use	Nut/Seed/Pit				PIT	1	
544	Kitchen	Biological	Food Related	Cut/Butchered Bone				LARGE MAMMAL	2	
544	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	41	
544	Kitchen	Biological	Food Related	Bone				BIRD	17	
544	Kitchen	Biological	Food Related	Bone				RODENT	9	
544	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	56	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
544	Kitchen	Biological	Food Related	Unidentified Bone					48	
544	Kitchen	Biological	Food Related	Tooth				POSS. PIG	1	
544	Kitchen	Biological	Food Related	Fish Scale/Bone				POSS. DRUMFISH TOOTH	1	
544	Kitchen	Biological	Shell	Oyster					3	
544	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				2	1750-1900
544	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE				3	1820-PRESENT
544	Kitchen	Ceramic	Whiteware	Annular	HOLLOWWARE BASE	BLUE			1	1820-1860
544	Kitchen	Ceramic	Whiteware	Sponged	HOLLOWWARE	GREEN/RED			1	1830-1870+
544	Kitchen	Ceramic	Whiteware	Polychrome Transfer-Printed	RIM	BROWN/YELLOW		BROWN UNDERGLAZE TRANSFER PRINT, YELL. & BLUE OG.	1	1828-PRESENT
544	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	1	1840-1900+
544	Kitchen	Glass	Machine Made Bottle	Light Green					2	1898-PRESENT
544	Kitchen	Glass	Non Machine Made Bottle	Dark Green					1	
** Subtotal **									205	
** SQUARE C	TU 06	N0989.8	E1000	FEATURE C-3B	BUILDER'S	TRENCH				
559	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		1	1750-1900
559	Kitchen	Ceramic	Whiteware	Cream-Colored Earthenware					1	1820-PRESENT
** Subtotal **									2	
** SQUARE C	TU 06	N0989.8	E1000	FEATURE C-3C	STRAT 1		08-12CMBD			
560	Architecture	Glass	Architectural Element	Window Glass					7	
560	Kitchen	Biological	Food Related	Fish Scale/Bone				SCALE	1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
560	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				3	1750-1900
560	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE			1	1790-1900
560	Kitchen	Ceramic	Slipware	Trailed w/Clear Glaze					1	
560	Miscellaneous	Stone	Miscellaneous Stone	Coal Slag				DISCARDED	1	
560	Industrial	Ceramic	Kiln	Separator			COIL		8	
** Subtotal **									22	
** SQUARE C	TU 06	N0989.8	E1000	FEATURE C-3C	STRAT 2		12-33CMBD			
561	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				1	1750-1900
561	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	6	1750-1900
561	Industrial	Ceramic	Kiln	Separator			COIL		5	
** Subtotal **									12	
** SQUARE D	GENERAL				COLLECTION	BACKDIRT				
511	Architecture	Ceramic	Miscellaneous	Ceramic Fixture (plumbing)					1	
511	Architecture	Manufactured	Miscellaneous Building Material	Plaster				SHELL	1	
511	Architecture	Manufactured	Miscellaneous Building Material	Concrete				MODERN, DISCARDED	1	
511	Architecture	Metal	Wire Nail, Common	2-4"					1	POST 1890
511	Clothing	Glass	Glass Clothing	Button				2 PC., BLACK GLASS	1	
511	Kitchen	Biological	Food Related	Cut/Butchered Bone				LARGE MAMMAL	1	
511	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	4	
511	Kitchen	Biological	Food Related	Bone				BIRD	1	
511	Kitchen	Biological	Shell	Oyster					1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
511	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE		POORLY FIRED	1	1790-1900
511	Kitchen	Ceramic	Redware	Brown Glaze	HOLLOWWARE			INTERIOR GLAZE	1	
511	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				2	1820-PRESENT
511	Kitchen	Ceramic	Whiteware	Annular	HOLLOWWARE	BLUE			1	1820-1860
511	Kitchen	Glass	Machine Made Bottle	Clear					1	1898-PRESENT
511	Kitchen	Glass	Machine Made Bottle	Green					2	1898-PRESENT
511	Kitchen	Glass	Machine Made Bottle	Light Green					1	1898-PRESENT
511	Kitchen	Glass	Machine Made Base	Amber				MODERN, DISCARDED	1	1898-PRESENT
511	Industrial	Ceramic	Kiln	Sagger					1	
511	Industrial	Ceramic	Kiln	Separator			SPOOL		2	
511	Industrial	Ceramic	Kiln	Separator			C-SHAPE		2	
511	Industrial	Ceramic	Kiln	Separator			COIL		1	
511	Activities	Metal	Miscellaneous Hardware	Miscellaneous Machine Part				GEAR/WHEEL	1	
511	Activities	Metal	Miscellaneous Hardware	Non-Electrical Wire					1	
** Subtotal **									30	
** SQUARE D	CLEAN UP				LEVEL 03	63-67CMBD				
507	Architecture	Metal	Unidentified	Nail					1	
507	Kitchen	Biological	Food Related	Bone				MAMMAL	1	
507	Kitchen	Biological	Food Related	Bone				BIRD	1	
507	Kitchen	Biological	Shell	Oyster					5	
507	Kitchen	Ceramic	Later Porcelain Type	Gilded	PLATE RIM				1	
507	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK BASE			POORLY FIRED	1	1750-1900
507	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				1	1750-1900
507	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE			2	1790-1900
507	Kitchen	Ceramic	Slipware	Trailed w/Clear Glaze	HOLLOWWARE			POSS. MILK PAN	2	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
507	Kitchen	Ceramic	Whiteware	Shell-Edged	SOUP PLATE RIM	BLUE			1	1820-1860's
507	Kitchen	Glass	Non Machine Made Bottle	Dark Green					3	
507	Industrial	Ceramic	Kiln	Sagger					1	
507	Industrial	Ceramic	Kiln	Separator			SPOOL		2	
507	Industrial	Ceramic	Kiln	Separator			COIL		5	
** Subtotal **									27	
** SQUARE D				FEATURE D-1	LEVEL 03	63-67CMBD				
508	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE				1	1750-1900
508	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				1	1820-PRESENT
** Subtotal **									2	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE C-1N STRAT 2	LEVEL 01	24-27CMBD				
517	Architecture	Glass	Architectural Element	Window Glass					1	
517	Architecture	Metal	Wire Nail, Common	Fragment					1	POST 1890
517	Kitchen	Biological	Food Related	Bone				BIRD	3	
517	Kitchen	Biological	Food Related	Unidentified Bone					2	
517	Kitchen	Glass	Table Glassware	Unidentified Tableglass					1	
** Subtotal **									8	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE C-1N STRAT 2	LEVEL 02	27-37CMBD				
518	Architecture	Glass	Architectural Element	Window Glass					3	
518	Architecture	Metal	Wire Nail, Common	2-4"					1	POST 1890
518	Architecture	Metal	Wire Nail, Common	Fragment					1	POST 1890
518	Architecture	Metal	Machine Cut Nail, Common	Fragment					3	1815-1890
518	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	31	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
518	Kitchen	Biological	Food Related	Bone				BIRD	6	
518	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	2	
518	Kitchen	Biological	Food Related	Unidentified Bone					22	
518	Kitchen	Glass	Unidentifiable Bottle Glass	Amber				ONE POSS. MACHINE MADE	2	
518	Miscellaneous	Metal	Unidentified Object	Iron/Steel				SMALL DISK	1	
** Subtotal **									72	
** SQUARE D TU 02 N0985 E1001.95 FEATURE C-1N STRAT 3 LEVEL 03 37-47CMBD										
519	Architecture	Glass	Architectural Element	Window Glass					3	
519	Architecture	Manufactured	Brick	Fragment				SMALL FRAGMENTS	2	
519	Architecture	Metal	Construction Hardware	Tack				VERY SMALL	4	
519	Architecture	Metal	Machine Cut Nail, Common	2-4"					4	1815-1890
519	Architecture	Metal	Machine Cut Nail, Common	Fragment					2	1815-1890
519	Architecture	Metal	Unidentified	Nail					1	
519	Kitchen	Biological	Food Related	Bone				BIRD	5	
519	Kitchen	Biological	Food Related	Bone				MAMMAL	13	
519	Kitchen	Biological	Food Related	Unidentified Bone					24	
519	Kitchen	Biological	Food Related	Tooth				RODENT	1	
519	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	2	
519	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	HOLLOWWARE	BLUE			1	1820-PRESENT
519	Kitchen	Glass	Bare Iron Pontil	Dark Green					1	1845-1880
519	Miscellaneous	Metal	Unidentified Object	Iron/Steel				ROD OR PIPE FRAGMENT	1	
519	Industrial	Ceramic	Kiln	Separator			COIL		1	
** Subtotal **									65	
** SQUARE D TU 02 N0985 E1001.95 FEATURE C-1S STRAT 2 LEVEL 01 24-27CMBD										
545	Architecture	Glass	Architectural Element	Window Glass					3	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
545	Clothing	Ceramic	Ceramic Clothing	Porcelain Button				1 PC., 4 HOLE, SMALL	1	
545	Clothing	Metal	Metal Clothing	Brass Button				2 PC., DOMED, FLOWER DESIGN	1	
545	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	5	
545	Kitchen	Biological	Food Related	Bone				BIRD	2	
545	Kitchen	Biological	Food Related	Unidentified Bone					7	
545	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	1	
545	Miscellaneous	Metal	Unidentified Object	Iron/Steel				FLAT FRAGMENTS	2	
** Subtotal **									22	
** SQUARE D TU 02 N0985 E1001.95 FEATURE C-1S STRAT 3 LEVEL 01 27-37CMBD										
546	Architecture	Glass	Architectural Element	Window Glass					4	
546	Architecture	Metal	Construction Hardware	Tack					1	
546	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
546	Architecture	Metal	Unidentified	Cut/Wrought Nail					3	
546	Clothing	Metal	Miscellaneous	Straight Pin					1	
546	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	35	
546	Kitchen	Biological	Food Related	Cut/Butchered Bone				LARGE MAMMAL	2	
546	Kitchen	Biological	Food Related	Bone				BIRD	3	
546	Kitchen	Biological	Food Related	Bone				LARGE RODENT	5	
546	Kitchen	Biological	Food Related	Unidentified Bone					15	
546	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	10	
546	Kitchen	Ceramic	Ironstone	White Undecorated	PLATTER RIM				1	1850-PRESENT
546	Miscellaneous	Biological	Wood	Unmodified Wood					1	
546	Miscellaneous	Metal	Unidentified Object	Iron/Steel				FLAT FRAGMENTS	11	
** Subtotal **									93	
** SQUARE D TU 02 N0985 E1001.95 FEATURE C-1S STRAT 3 LEVEL 02 37-47CMBD										
547	Architecture	Glass	Architectural Element	Window Glass					2	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
547	Architecture	Metal	Unidentified	Nail					2	
547	Clothing	Metal	Metal Clothing	Brass Button				1 PC., 4 HOLE, STAMPED	1	
547	Furniture	Glass	Miscellaneous	Mirror Glass					1	
547	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	6	
547	Kitchen	Biological	Food Related	Cut/Butchered Bone				LARGE MAMMAL	2	
547	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	4	
547	Kitchen	Biological	Food Related	Bone				RODENT	2	
547	Kitchen	Biological	Food Related	Unidentified Bone					5	
547	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	5	
547	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated				SMALL FRAGMENTS	2	1750-1900
547	Kitchen	Ceramic	Redware	Clear Glaze, Plain	HOLLOWWARE RIM				1	
547	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				2	1820-PRESENT
547	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown		BLUE			1	1820-PRESENT
547	Kitchen	Glass	Blown in Mold	Dark Green					1	
547	Miscellaneous	Metal	Unidentified Object	Iron/Steel				FLAT FRAGMENT	1	
** Subtotal **									38	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-2	LEVEL 01	15-25CMBD				
548	Architecture	Glass	Architectural Element	Window Glass					4	
548	Architecture	Metal	Machine Cut Nail, Common	Fragment					2	1815-1890
548	Kitchen	Biological	Food Related	Bone				MAMMAL	5	
548	Kitchen	Biological	Food Related	Unidentified Bone					5	
548	Kitchen	Biological	Food Related	Fish Scale/Bone				SCALE	1	
548	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	BASE				1	1750-1900
548	Kitchen	Ceramic	Yellow Ware	Plain					1	1830-1930's
548	Industrial	Ceramic	Kiln	Separator			COIL		3	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
** Subtotal **									22	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-3	LEVEL 01	10-20CMBD				
520	Architecture	Glass	Architectural Element	Window Glass					4	
520	Architecture	Metal	Machine Cut Nail, Common	Fragment					3	1815-1890
520	Architecture	Metal	Unidentified	Cut/Wrought Nail					6	
520	Kitchen	Biological	Food Related	Unidentified Bone					2	
520	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard					1	
520	Kitchen	Ceramic	Whiteware	Undecorated					1	1820-PRESENT
520	Kitchen	Ceramic	Whiteware	Polychrome Hand-Painted		RED			1	1820-PRESENT
520	Miscellaneous	Metal	Unidentified Object	Iron/Steel				POSS. BLADE	2	
520	Industrial	Ceramic	Kiln	Separator			COIL		1	
520	Activities	Glass	Miscellaneous	Lamp Glass					1	
** Subtotal **									22	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-3	LEVEL 02	20-30CMBD				
549	Kitchen	Biological	Food Related	Bone				SMALL FRAGMENTS	13	
549	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard					1	
549	Kitchen	Ceramic	Pearlware	Blue Shell-Edged	PLATE RIM	BLUE			1	1780-1830
549	Kitchen	Ceramic	Whiteware	Annular	HOLLOWWARE	BLUE			1	1820-1860
549	Industrial	Ceramic	Kiln	Separator			FRAGMENT		1	
** Subtotal **									17	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-4	LEVEL 01	14-18CMBD				
521	Architecture	Glass	Architectural Element	Window Glass					2	
521	Architecture	Metal	Unidentified	Cut/Wrought Nail					1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
521	Kitchen	Biological	Food Related	Unidentified Bone					1	
521	Kitchen	Glass	Table Glassware	Unidentified Tableglass					1	
** Subtotal **									5	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-5	LEVEL 04	77-87CMBD				
554	Architecture	Glass	Architectural Element	Window Glass					3	
554	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	3	
554	Kitchen	Biological	Food Related	Unidentified Bone					6	
554	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				1	1820-PRESENT
554	Industrial	Ceramic	Kiln	Separator			FRAGMENT		1	
** Subtotal **									14	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-5N	LEVEL 01	47-57CMBD				
522	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
522	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	2	
522	Kitchen	Biological	Food Related	Bone				BIRD	1	
522	Kitchen	Biological	Food Related	Unidentified Bone					4	
522	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	PLATE BASE	BLUE		W/DIAMOND MARK "5" IN LOWER CORNER	1	1820-PRESENT
522	Kitchen	Ceramic	Whiteware	Shell-Edged	PLATE RIM	BLUE			1	1820-1860's
522	Kitchen	Ceramic	Whiteware	Undecorated	RIM			MOLDED	1	1820-PRESENT
522	Activities	Glass	Miscellaneous	Lamp Glass					1	
** Subtotal **									12	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-5N	LEVEL 02	57-67CMBD				
550	Architecture	Glass	Architectural Element	Window Glass					1	
550	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	5	
550	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				1	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
550	Kitchen	Ceramic	Miscellaneous Stoneware	Black Basalt	HOLLOWWARE				1	1750-1820
550	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				1	1820-PRESENT
550	Kitchen	Glass	Non Machine Made Bottle	Dark Green					1	
550	Industrial	Ceramic	Kiln	Separator			COIL		3	
** Subtotal **									13	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-5N	LEVEL 03	67-77CMBD				
551	Architecture	Glass	Architectural Element	Window Glass					4	
551	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	8	
551	Kitchen	Biological	Food Related	Fish Scale/Bone				BONE	1	
551	Kitchen	Biological	Shell	Oyster					1	
551	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	2	1750-1900
551	Kitchen	Ceramic	Whiteware	Undecorated	BASE				1	1820-PRESENT
551	Industrial	Ceramic	Kiln	Separator			COIL		1	
551	Industrial	Ceramic	Kiln	Separator			FRAGMENT		2	
** Subtotal **									20	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-5S	LEVEL 02	57-67CMBD				
552	Architecture	Glass	Architectural Element	Window Glass					3	
552	Architecture	Metal	Machine Cut Nail, Common	Fragment					2	1815-1890
552	Kitchen	Biological	Food Related	Bone				MAMMAL	4	
552	Industrial	Ceramic	Kiln	Separator			FRAGMENT		1	
** Subtotal **									10	
** SQUARE D	TU 02	N0985	E1001.95	FEATURE D-5S	LEVEL 03	67-77CMBD				
553	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	7	
553	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown		BLUE			1	1820-PRESENT

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
** Subtotal **									8	
** SQUARE B	CLEAN UP			FEATURE 8102		SURFACE				
501	Architecture	Metal	Unidentified	Cut/Wrought Nail					2	
501	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated			WASTER	POORLY FIRED	7	1750-1900
501	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				2	1750-1900
501	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE				1	1750-1900
501	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK LID			POSS. KNOB FOR LID	1	1750-1900
501	Kitchen	Ceramic	Redware	Black Glaze, Thick	HOLLOWWARE				1	
501	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
501	Industrial	Ceramic	Kiln	Separator			COIL		5	
501	Industrial	Ceramic	Kiln	Separator			C-SHAPE		1	
501	Industrial	Ceramic	Kiln	Sagger					9	
** Subtotal **									30	
** SQUARE B	CLEAN UP			FEATURE 8102		SECOND FLUE SURFACE				
532	Architecture	Ceramic	Miscellaneous	Sewerage/Drainage Pipe					1	
532	Architecture	Ceramic	Miscellaneous	Ceramic Fixture (plumbing)					1	
532	Architecture	Glass	Architectural Element	Window Glass					13	
532	Architecture	Metal	Wire Nail, Common	< 2"					2	POST 1890
532	Architecture	Metal	Construction Hardware	Bolt and/or Bracket				BOLT	2	
532	Architecture	Metal	Machine Cut Nail, Common	2-4"					3	1815-1890
532	Architecture	Metal	Machine Cut Nail, Common	Fragment					4	1815-1890
532	Clothing	Ceramic	Ceramic Clothing	Porcelain Button				1 PC., 4 HOLE	1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
532	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	1	
532	Kitchen	Biological	Shell	Oyster					2	
532	Kitchen	Biological	Shell	Clam					1	
532	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard	HOLLOWWARE				1	
502	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated			WASTER	POORLY FIRED	1	1750-1900
510	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	BOTTLE		WASTER	POORLY FIRED	8	1750-1900
510	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	PITCHER/JAR	BLUE	WASTER	POORLY FIRED	1	1790-1900
510	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER	THIN, POORLY FIRED	1	1750-1900
532	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER	POORLY FIRED	13	1750-1900
532	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE		WASTER	POORLY FIRED	1	1750-1900
532	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE	WASTER	POORLY FIRED	1	1790-1900
532	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				15	1750-1900
532	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE				5	1750-1900
532	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE			5	1790-1900
532	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE			1	1790-1900
532	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HANDLE	BLUE			2	1790-1900
532	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	JUG LIP				1	1750-1900
502	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	LID	BLUE			1	1790-1900
532	Kitchen	Ceramic	Ironstone	Gray Undecorated					3	1813-1900+
510	Kitchen	Ceramic	Pearlware	Undecorated	SAUCER				1	1779-1830

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
532	Kitchen	Ceramic	Whiteware	Annular	HOLLOWWARE	BLUE			2	1820-1860
532	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				5	1820-PRESENT
532	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE				5	1820-PRESENT
532	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	FLAT WARE	BLUE			3	1820-PRESENT
532	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	HOLLOWWARE	BLUE			1	1820-PRESENT
532	Kitchen	Ceramic	Whiteware	Shell-Edged	PLATE	BLUE			1	1820-1860's
532	Kitchen	Glass	Blown in Mold	Amber					2	
532	Kitchen	Glass	Blown in Mold	Aqua					3	
532	Kitchen	Glass	Machine Made Bottle	Light Green				PROB. MACHINE MADE	2	1898-PRESENT
532	Kitchen	Glass	Machine Made Bottle	Clear				PROB. MACHINE MADE	1	1898-PRESENT
502	Industrial	Ceramic	Kiln	Sagger					12	
502	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
502	Industrial	Ceramic	Kiln	Separator			COIL		1	
502	Industrial	Ceramic	Kiln	Separator			RING		1	
510	Industrial	Ceramic	Kiln	Sagger					28	
510	Industrial	Ceramic	Kiln	Separator			COIL		16	
510	Industrial	Ceramic	Kiln	Separator			SPOOL		2	
510	Industrial	Ceramic	Kiln	Brick					1	
532	Industrial	Ceramic	Kiln	Sagger					23	
532	Industrial	Ceramic	Kiln	Separator			COIL		43	
532	Industrial	Ceramic	Kiln	Separator			C-SHAPE		3	
532	Industrial	Ceramic	Kiln	Separator			TACO		3	
532	Industrial	Ceramic	Kiln	Separator			SPOOL		2	
532	Industrial	Ceramic	Kiln	Slag					5	
532	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem				4/64	2	
532	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem				4/64, CURVED STEM	1	
532	Personal	Ceramic	Tobacco Pipe	Molded Ball Clay Stem				6/64, DECAYED, PINKISH CLAY	1	
532	Personal	Ceramic	Tobacco Pipe	Fragment				PIPE CLAY ROD, NO HOLE	1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
532	Activities	Glass	Miscellaneous	Lamp Glass					2	
532	Activities	Glass	Miscellaneous	Lamp Glass				SCALLOPED EDGE	1	
532	Activities	Glass	Miscellaneous	Lamp Glass				POSS. MOLDED LAMP FRAGMENT, HEAVY	1	
532	Activities	Metal	Miscellaneous Hardware	Non-Electrical Wire					1	
** Subtotal **									268	
**				FEATURE 8102 STRAT 1 LEVEL 01 18-30CMBD						
529	Architecture	Metal	Machine Cut Nail, Common	2-4"					2	1815-1890
529	Kitchen	Biological	Shell	Oyster					1	
529	Kitchen	Biological	Shell	Clam					1	
529	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE		SMALL	1	1790-1900
529	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				2	1750-1900
529	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	4	1750-1900
529	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	RIM			THIN	2	1750-1900
529	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	JUG LIP	BLUE			1	1790-1900
529	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK BASE		WASTER		1	1750-1900
529	Kitchen	Ceramic	Ironstone	Gray Undecorated					1	1813-1900+
529	Kitchen	Ceramic	Whiteware	Undecorated					1	1820-PRESENT
529	Kitchen	Ceramic	Whiteware	Shell-Edged	PLATE RIM	BLUE			3	1820-1860's
529	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	PLATE BASE	BLUE			1	1820-PRESENT
529	Kitchen	Ceramic	Whiteware	Polychrome Hand-Painted	HOLLOWWARE	BLACK			1	1820-PRESENT
529	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	8	1840-1900+

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
529	Kitchen	Glass	Unidentifiable Bottle Glass	Clear					1	
529	Miscellaneous	Metal	Unidentified Object	Iron/Steel				CAST IRON FRAGMENT, POSS. POT	1	
529	Industrial	Ceramic	Kiln	Sagger					11	
529	Industrial	Ceramic	Kiln	Separator			SPOOL		13	
529	Industrial	Ceramic	Kiln	Separator			C-SHAPE		11	
529	Industrial	Ceramic	Kiln	Separator			COIL		84	
529	Industrial	Ceramic	Kiln	Separator			TACO		5	
529	Industrial	Ceramic	Kiln	Brick					2	
529	Industrial	Ceramic	Kiln	Separator			FRAGMENT		13	
529	Industrial	Ceramic	Kiln	Sagger				SMALL	1	
** Subtotal **									172	
**				FEATURE 8102 SE						
535	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)	FLASK		WASTER		2	1840-1900+
** Subtotal **									2	
**				FEATURE 8102 SE	LEVEL 01	19-33CMBD				
565	Architecture	Metal	Unidentified	Cut/Wrought Nail					2	
** Subtotal **									2	
**				FEATURE 8102 SE	LEVEL 01	18-32CMBD				
568	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	PITCHER	BLUE	WASTER	THIN	1	1790-1900
568	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE		POORLY FIRED	1	1790-1900
568	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE				5	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
568	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP				1	1750-1900
568	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	PITCHER HANDLE			POORLY FIRED, THIN	2	1750-1900
568	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK/JAR LID			POORLY FIRED, W/FINIAL	1	1750-1900
** Subtotal **									11	
**				FEATURE 8102 SE	LEVEL 01	19-33CMBD				
565	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HANDLE	BLUE		POORLY FIRED	1	1790-1900
565	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE			POORLY FIRED	1	1750-1900
565	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE				2	1750-1900
565	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER		15	1790-1900
565	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		8	1750-1900
565	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				10	1750-1900
565	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	16	1750-1900
565	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP				3	1750-1900
** Subtotal **									56	
**				FEATURE 8102 SE	LEVEL 01	18-32CMBD				
568	Industrial	Ceramic	Kiln	Sagger					5	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
** Subtotal **									5	
**				FEATURE 8102 SE	LEVEL 01	19-33CMBD				
565	Industrial	Ceramic	Kiln	Sagger					12	
565	Industrial	Ceramic	Kiln	Separator			COIL		11	
565	Industrial	Ceramic	Kiln	Sagger				SMALL	1	
565	Industrial	Ceramic	Kiln	Separator			C-SHAPE		1	
565	Industrial	Ceramic	Kiln	Brick					1	
565	Industrial	Ceramic	Kiln	Other				FLAT CLAY FRAGMENTS	4	
** Subtotal **									30	
**				FEATURE 8102 SE	LEVEL 01	18-32CMBD				
568	Personal	Ceramic	Tobacco Pipe	Ball Clay Bowl, Molded					1	
** Subtotal **									1	
**				FEATURE 8102 SE	LEVEL 02	33-43CMBD				
566	Architecture	Metal	Machine Cut Nail, Common	Fragment					4	1815-1890
566	Architecture	Metal	Unidentified	Nail					3	
** Subtotal **									7	
**				FEATURE 8102 SE	LEVEL 02	32-46CMBD				
569	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HANDLE	BLUE			1	1790-1900
569	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE	WASTER		1	1790-1900
569	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				7	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
569	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		10	1750-1900
569	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE				1	1750-1900
569	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK RIM				1	1750-1900
569	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	BOTTLE LIP		WASTER		1	1750-1900
** Subtotal **									22	
**				FEATURE 8102 SE	LEVEL 02	33-43CMBD				
566	Kitchen	Ceramic	Domestic Gray Stoneware	Alkaline Glaze	FLASK		WASTER	DARK INTERIOR GLAZE	8	19TH-20TH C.
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE	WASTER		1	1790-1900
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE		POORLY FIRED	1	1790-1900
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE			2	1790-1900
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK	BLUE			2	1790-1900
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE		POORLY FIRED	2	1790-1900
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HANDLE	BLUE	WASTER	POORLY FIRED	1	1790-1900
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK/JAR LID		WASTER	POORLY FIRED	1	1750-1900
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				10	1750-1900
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		13	1750-1900
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	3	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
566	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	PITCHER		WASTER	POORLY FIRED	4	1750-1900
** Subtotal **									48	
**			FEATURE	8102 SE	LEVEL 02	32-46CMBD				
569	Industrial	Ceramic	Kiln	Sagger					7	
569	Industrial	Ceramic	Kiln	Separator			COIL		7	
** Subtotal **									14	
**			FEATURE	8102 SE	LEVEL 02	33-43CMBD				
566	Industrial	Ceramic	Kiln	Sagger					8	
566	Industrial	Ceramic	Kiln	Separator			COIL		3	
566	Industrial	Ceramic	Kiln	Sagger				SMALL	2	
566	Industrial	Ceramic	Kiln	Sagger				UNFIRED	7	
** Subtotal **									20	
**			FEATURE	8102 SE	LEVEL 03	43-56CMBD				
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE		TULIP PATTERN, MEND	2	1790-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE			6	1790-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE		W/FINIAL	1	1790-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HANDLE	BLUE	WASTER		1	1790-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE			THICK	2	1750-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				28	1750-1900

MSA KILN
PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		16	1750-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	4	1750-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	HOLLOWWARE				2	1750-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP				6	1750-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG				2	1750-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	JUG LIP				1	1750-1900
567	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	JUG LIP	BLUE			1	1790-1900
** Subtotal **									72	
**				FEATURE 8102 SE	LEVEL 03	46-50CMBD				
570	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		4	1750-1900
570	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				2	1750-1900
570	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE		WASTER	POSS. BOTTLE	1	1750-1900
** Subtotal **									7	
**				FEATURE 8102 SE	LEVEL 03	43-56CMBD				
567	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	2	1840-1900+
567	Industrial	Ceramic	Kiln	Sagger					25	
567	Industrial	Ceramic	Kiln	Separator			COIL		6	
567	Industrial	Ceramic	Kiln	Separator			FRAGMENT		9	

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PHASE III
ARTIFACT INVENTORY
18BC88

FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
567	Industrial	Ceramic	Kiln	Sagger				SMALL	3	
** Subtotal **									45	
**			FEATURE	8102 SE	LEVEL 03	46-50CMBD				
570	Industrial	Ceramic	Kiln	Sagger					1	
** Subtotal **									1	
**			FEATURE	8102 SW	LEVEL 01	23-25CMBD				
562	Architecture	Glass	Architectural Element	Window Glass				W/INCISDED LINE	1	
562	Architecture	Metal	Machine Cut Nail, Common	2-4"				W/CERAMIC ATTACHED	1	1815-1890
562	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
562	Architecture	Metal	Unidentified	Cut/Wrought Nail					4	
562	Architecture	Metal	Unidentified	Nail					1	
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HANDLE	BLUE		POORLY FIRED	1	1790-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	LID	BLUE	WASTER	POORLY FIRED	2	1790-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER	POORLY FIRED	2	1790-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER		10	1790-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK	BLUE			2	1790-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE				5	1750-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE		WASTER		4	1750-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE			POORLY FIRED	4	1750-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	31	1750-1900

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PHASE III
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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				34	1750-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		22	1750-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP				1	1750-1900
562	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER	W/SLAG ATTACHED	1	1750-1900
562	Kitchen	Ceramic	Pearlware	Finger-Painted	BOWL	ORANGE/BLUE		W/BROWN ALSO	11	1790-1820
562	Kitchen	Ceramic	Pearlware	Underglaze Floral Polychrome	TEACUP	GREEN/BLUE			10	1795-1815
562	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE				4	1820-PRESENT
562	Industrial	Ceramic	Kiln	Sagger					21	
562	Industrial	Ceramic	Kiln	Separator			COIL		11	
562	Industrial	Ceramic	Kiln	Separator			FRAGMENT		6	
562	Industrial	Ceramic	Kiln	Other				FLAT CLAY FRAGMENTS	11	
** Subtotal **									201	
**				FEATURE 8102 SW	LEVEL 02	35-47CMBD				
563	Architecture	Metal	Machine Cut Nail, Common	2-4"					2	1815-1890
563	Architecture	Metal	Machine Cut Nail, Common	Fragment					2	1815-1890
563	Architecture	Metal	Unidentified	Nail					1	
563	Kitchen	Biological	Shell	Oyster					2	
563	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE	WASTER		2	1790-1900
563	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER		4	1790-1900
563	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER	POORLY FIRED	1	1790-1900
563	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE			2	1790-1900

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ARTIFACT INVENTORY
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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
563	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE		WASTER		2	1750-1900
563	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		7	1750-1900
563	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	8	1750-1900
563	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	3	1840-1900+
563	Industrial	Ceramic	Kiln	Sagger					24	
563	Industrial	Ceramic	Kiln	Sagger				SMALL	1	
563	Industrial	Ceramic	Kiln	Separator			COIL		4	
563	Industrial	Ceramic	Kiln	Separator			TACO		1	
563	Industrial	Ceramic	Kiln	Separator			KNOB	SMALL KNOB	1	
563	Industrial	Ceramic	Kiln	Other				FLAT CLAY FRAGMENT	1	
** Subtotal **									68	
**				FEATURE 8102 SW	LEVEL 03	47-59CMBD				
564	Architecture	Metal	Unidentified	Cut/Wrought Nail					4	
564	Architecture	Metal	Unidentified	Cut/Wrought Nail				W/KILN FURNITURE ATTACHED	1	
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	CROCK	BLUE			10	1790-1900
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	LID	BLUE	WASTER		2	1790-1900
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				54	1750-1900
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		6	1750-1900
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK RIM				1	1750-1900
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK RIM		WASTER		1	1750-1900

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PHASE III
ARTIFACT INVENTORY
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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER	W/KILN FURNITURE ATTACHED	1	1750-1900
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Brown Glaze	HOLLOWWARE		WASTER		12	1750-1900
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG				4	1750-1900
564	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	1	1750-1900
564	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)	LIP			BOTTLE-LIKE, POORLY FIRED	2	1840-1900+
564	Industrial	Ceramic	Kiln	Sagger					20	
564	Industrial	Ceramic	Kiln	Separator			COIL		10	
564	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
564	Industrial	Ceramic	Kiln	Brick					3	
** Subtotal **									133	
**				FEATURE 8102 SW UTIL. TRENCH LEVEL 02 30-85CMBD						
534	Architecture	Glass	Architectural Element	Window Glass					1	
534	Architecture	Metal	Machine Cut Nail, Common	Fragment					2	1815-1890
534	Architecture	Metal	Unidentified	Nail					2	
534	Kitchen	Biological	Shell	Oyster					2	
534	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard	HOLLOWWARE				1	
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	CROCK	BLUE			2	1790-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK RIM	BLUE	WASTER		2	1790-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER		1	1790-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE		POORLY FIRED	1	1790-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				13	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		2	1750-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	10	1750-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE			POORLY FIRED	1	1750-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	CROCK				6	1750-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Alkaline Glaze	FLASK		WASTER	DARK INTERIOR GLAZE	2	19TH-20TH C.
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP		WASTER		1	1750-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	BOTTLE/JUG LIP				1	1750-1900
534	Kitchen	Ceramic	Domestic Gray Stoneware	Alkaline Glaze	FLASK RIM				1	19TH-20TH C.
534	Kitchen	Ceramic	Redware	Dark Brown/Black Glaze	HOLLOWWARE				1	
534	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				3	1820-PRESENT
534	Kitchen	Ceramic	Whiteware	Willow Transfer-Printed	HOLLOWWARE	BLUE			3	1820-PRESENT
534	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	5	1840-1900+
534	Industrial	Ceramic	Kiln	Sagger					15	
534	Industrial	Ceramic	Kiln	Separator			COIL		29	
534	Industrial	Ceramic	Kiln	Separator			TACO		1	
534	Industrial	Ceramic	Kiln	Separator			RING		1	
534	Industrial	Ceramic	Kiln	Brick					6	
534	Industrial	Ceramic	Kiln	Separator			C-SHAPE		3	
534	Industrial	Ceramic	Kiln	Slag					14	
534	Industrial	Ceramic	Kiln	Separator			FRAGMENT		7	
534	Industrial	Ceramic	Kiln	Separator			DROP		1	
534	Industrial	Ceramic	Kiln	Sagger				SMALL	1	
534	Industrial	Ceramic	Kiln	Sagger				UNFIRED	1	
534	Industrial	Ceramic	Kiln	Other				FLAT CLAY FRAGMENTS	4	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
534	Personal	Ceramic	Tobacco Pipe	Ball Clay Stem				5/64	1	
** Subtotal **									147	
**	TU 03	N0995	E1000	FEATURE 8102	LEVEL 01	16-28CMBD				
523	Architecture	Glass	Architectural Element	Window Glass					8	
523	Kitchen	Biological	Shell	Oyster					1	
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE			6	1790-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK RIM	BLUE			6	1790-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	RIM/LID	BLUE	WASTER	ROUNDED LID OR RIM	1	1790-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE			4	1790-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE		IRON OXIDE IN CENTER, SWAG PATTERN	1	1790-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE		POORLY FIRED	1	1790-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE		POORLY FIRED	8	1790-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	PITCHER RIM	BLUE		POORLY FIRED, THIN	1	1790-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				21	1750-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	13	1750-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		4	1750-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE		WASTER		1	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP				1	1750-1900
523	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	LIP				1	1750-1900
523	Kitchen	Ceramic	Redware	Brown Glaze	CROCK				2	
523	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE RIM				1	1820-PRESENT
523	Kitchen	Ceramic	Whiteware	Cream-Colored Earthenware	BASE				1	1820-PRESENT
523	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	21	1840-1900+
523	Kitchen	Glass	Rickett's Type 3 Piece Mold	Dark Green					1	1821-c.1913
523	Industrial	Ceramic	Kiln	Sagger					14	
523	Industrial	Ceramic	Kiln	Separator			SPOOL		4	
523	Industrial	Ceramic	Kiln	Separator			C-SHAPE		3	
523	Industrial	Ceramic	Kiln	Separator			RING		1	
523	Industrial	Ceramic	Kiln	Separator			COIL		1	
** Subtotal **									127	
**	TU 03	N0995	E1000	FEATURE 8102	LEVEL 02	28-40CMBD				
524	Architecture	Glass	Architectural Element	Window Glass					2	
524	Architecture	Metal	Machine Cut Nail, Common	2-4"					1	1815-1890
524	Architecture	Metal	Unidentified	Nail					1	
524	Kitchen	Biological	Food Related	Unidentified Bone					1	
524	Kitchen	Biological	Shell	Oyster					4	
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE		IRON OXIDE IN CENTER, SWAG PATTERN	4	1790-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	PITCHER	BLUE		POORLY FIRED, THIN	17	1790-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HANDLE	BLUE		THICK	1	1790-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER		1	1790-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				19	1750-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	93	1750-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		5	1750-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP				7	1750-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE				3	1750-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE		WASTER	POORLY FIRED	3	1750-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE		POORLY FIRED	4	1790-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE		TULIP PATTERN	1	1790-1900
524	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	JUG LIP		WASTER		1	1750-1900
524	Kitchen	Ceramic	Whiteware	Cream-Colored Earthenware	HOLLOWWARE				1	1820-PRESENT
524	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	96	1840-1900+
524	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)			WASTER	UNFIRED, CHALKY	17	1840-1900+
524	Kitchen	Glass	Table Glassware	Unidentified Tableglass					1	
524	Miscellaneous	Metal	Unidentified Object	Iron/Steel				FLAT FRAGMENT	1	
524	Miscellaneous	Stone	Miscellaneous Stone	Coal				DISCARDED	1	
524	Industrial	Ceramic	Kiln	Sagger					5	
524	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
524	Industrial	Ceramic	Kiln	Separator			C-SHAPE		3	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
524	Industrial	Ceramic	Kiln	Separator			COIL		10	
524	Industrial	Ceramic	Kiln	Separator			TACO		1	
524	Industrial	Ceramic	Kiln	Separator			FRAGMENT		10	
524	Industrial	Ceramic	Kiln	Brick				SMALL FRAGMENTS	2	
** Subtotal **									317	
**	TU 03	N0995	E1000	FEATURE 8102	LEVEL 03	40-50CMBD				
525	Architecture	Metal	Machine Cut Nail, Common	Fragment					2	1815-1890
525	Kitchen	Biological	Food Related	Unidentified Bone					1	
525	Kitchen	Biological	Shell	Oyster					7	
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				4	1750-1900
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORY FIRED	5	1750-1900
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE			2	1790-1900
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER		1	1790-1900
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE RIM	BLUE		POSS. PITCHER	1	1790-1900
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	LID	BLUE			1	1790-1900
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	CROCK RIM				1	1750-1900
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	JUG LIP				1	1750-1900
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE		WASTER		3	1750-1900
525	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	JUG LIP				1	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
525	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)					15	1840-1900+
525	Miscellaneous	Metal	Unidentified Object	Iron/Steel				FLAT FRAGMENT	1	
525	Industrial	Ceramic	Kiln	Sagger					2	
525	Industrial	Ceramic	Kiln	Sagger				SMALL	2	
525	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
525	Industrial	Ceramic	Kiln	Separator			C-SHAPE		1	
525	Industrial	Ceramic	Kiln	Separator			COIL		3	
525	Industrial	Ceramic	Kiln	Separator			FRAGMENT		12	
** Subtotal **									67	
**	TU 03	N0995	E1000	FEATURE 8102	LEVEL 04	50-58CMBD				
541	Architecture	Metal	Machine Cut Nail, Common	Fragment					1	1815-1890
541	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				1	1750-1900
541	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	2	1750-1900
541	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	3	1840-1900+
541	Industrial	Ceramic	Kiln	Separator			COIL		1	
** Subtotal **									8	
**	TU 03	N0995	E1000	FEATURE 8102 SW	LEVEL 05	58-62CMBD				
533	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				1	1750-1900
533	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE RIM			THIN	1	1750-1900
533	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	2	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
533	Activities	Metal	Miscellaneous Hardware	Other				IRON ROD	1	
** Subtotal **									5	
** TU 04 N0995 E0998 FEATURE 8102 SECOND FLUE LEVEL 03 23-28CMBD										
555	Architecture	Glass	Architectural Element	Window Glass					13	
555	Architecture	Metal	Machine Cut Nail, Common	2-4"					1	1815-1890
555	Architecture	Metal	Unidentified	Nail					1	
555	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	CROCK	BLUE		POORLY FIRED, TULIP PATTERN	2	1790-1900
555	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	LID	BLUE		POORLY FIRED, TULIP PATTERN	1	1790-1900
555	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				6	1750-1900
555	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	9	1750-1900
555	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP		WASTER		1	1750-1900
555	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE			POORLY FIRED	1	1750-1900
555	Kitchen	Ceramic	Yellow Ware	Dipped/Annular	HOLLOWWARE	BROWN			3	1840-1930's
555	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	12	1840-1900+
555	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)			WASTER	BOTTLE-LIKE, UNFIRED	3	1840-1900+
555	Kitchen	Glass	Unidentifiable Bottle Glass	Clear					1	
555	Industrial	Ceramic	Kiln	Sagger					6	
555	Industrial	Ceramic	Kiln	Separator			RING	VERY LARGE	2	
555	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
555	Industrial	Ceramic	Kiln	Separator			C-SHAPE		1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
555	Industrial	Ceramic	Kiln	Separator			COIL		2	
555	Industrial	Ceramic	Kiln	Other				CLAY	2	
** Subtotal **									68	
**	TU 04	N0995	E0998	FEATURE 8102	SECOND FLUE	LEVEL 04	15-30CMBD			
556	Architecture	Glass	Architectural Element	Window Glass					9	
556	Architecture	Metal	Wire Nail, Common	2-4"					1	POST 1890
556	Architecture	Metal	Machine Cut Nail, Common	2-4"					1	1815-1890
556	Architecture	Metal	Unidentified	Nail					3	
556	Clothing	Glass	Glass Clothing	Button				1 PC., 4 HOLE, BLACK	1	
556	Kitchen	Biological	Food Related	Unidentified Bone				CALCINED	1	
556	Kitchen	Biological	Food Related	Unidentified Bone					1	
556	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				4	1750-1900
556	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	3	1750-1900
556	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE			POORLY FIRED	1	1750-1900
556	Kitchen	Ceramic	Ironstone	Transfer-Printed	HOLLOWWARE	BLUE			1	POST 1813
556	Kitchen	Ceramic	Pearlware	Underglaze Floral Polychrome	HOLLOWWARE RIM	YELLOW/BROWN			1	1795-1815
556	Kitchen	Ceramic	Pearlware	Underglaze Blue Hand-Painted	CUP RIM	BLUE			1	1779-1820
556	Kitchen	Ceramic	Whiteware	Undecorated					1	1820-PRESENT
556	Kitchen	Ceramic	Whiteware	Annular	HOLLOWWARE	BROWN/BLUE			1	1820-1860
556	Kitchen	Ceramic	Whiteware	Sponged	HOLLOWWARE	GREEN			1	1830-1870+
556	Kitchen	Ceramic	Tin Enamelled Earthenware	Without Glaze				POSS. TIN GLAZE	1	1620-1800
556	Kitchen	Ceramic	Yellow Ware	Rockingham/Bennington	HOLLOWWARE				1	1830-1900
556	Kitchen	Glass	Blown in Mold	Light Green					1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
556	Kitchen	Glass	Machine Made Bottle	Clear					1	1898-PRESENT
556	Kitchen	Glass	Machine Made Bottle	Amber				FLASK	1	1898-PRESENT
556	Kitchen	Glass	Table Glassware	Unidentified Tableglass				FROSTED	1	
556	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
556	Industrial	Ceramic	Kiln	Separator			COIL		2	
556	Industrial	Ceramic	Kiln	Separator			TACO		1	
556	Industrial	Ceramic	Kiln	Sagger					1	
556	Activities	Metal	Miscellaneous Hardware	Miscellaneous Machine Part				POSS. MACHINE PARTS	3	
** Subtotal **									45	
** TU 04 N0995 E0998 FEATURE 8102 SECOND FLUE LEVEL 05 28-34CMBD										
557	Architecture	Glass	Architectural Element	Window Glass					1	
557	Architecture	Metal	Machine Cut Nail, Common	2-4" Nail					2	1815-1890
557	Architecture	Metal	Unidentified						1	
557	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				5	1750-1900
557	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE				3	1750-1900
557	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	JUG LIP		WASTER		1	1750-1900
557	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	1	1750-1900
557	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE			1	1790-1900
557	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	LIP	BLUE			2	1790-1900
557	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	LID	BLUE	WASTER		1	1790-1900
557	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK	BLUE		W/LUG HANDLE	1	1790-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
557	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HANDLE	BLUE	WASTER		1	1790-1900
557	Kitchen	Ceramic	Whiteware	Undecorated					1	1820-PRESENT
557	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	29	1840-1900+
557	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)			WASTER	BOTTLE-LIKE, UNFIRED	1	1840-1900+
557	Kitchen	Glass	Table Glassware	Unidentified Tableglass				FROSTED	1	
557	Industrial	Ceramic	Kiln	Brick				W/KILN FURNITURE ATTACHED	1	
557	Industrial	Ceramic	Kiln	Sagger					3	
557	Industrial	Ceramic	Kiln	Separator			TACO		1	
557	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
557	Industrial	Ceramic	Kiln	Separator			C-SHAPE		1	
557	Industrial	Ceramic	Kiln	Separator			COIL		5	
557	Industrial	Ceramic	Kiln	Separator			FRAGMENT		3	
557	Industrial	Ceramic	Kiln	Slag					1	
557	Industrial	Ceramic	Kiln	Other				CLAY	2	
** Subtotal **									70	
** TU 04 N0995 E0998 FEATURE 8102 SECOND FLUE LEVEL 07 34-49CMBD										
558	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE			1	1790-1900
558	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	1	1840-1900+
558	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
558	Industrial	Ceramic	Kiln	Separator			COIL		2	
558	Industrial	Ceramic	Kiln	Separator			C-SHAPE		1	
558	Industrial	Ceramic	Kiln	Sagger					1	
558	Industrial	Ceramic	Kiln	Slag					1	
558	Personal	Ceramic	Tobacco Pipe	Ball Clay Bowl, Molded				RIBBED	1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
** Subtotal **									9	
** TU 04 N0995 E0998 FEATURE 8102 E SECOND FLUE LEVEL 01 05-15CMBD										
526	Architecture	Glass	Architectural Element	Window Glass					106	
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE			2	1790-1900
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	CROCK/JAR LID	BLUE	WASTER		2	1790-1900
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE		POORLY FIRED	7	1790-1900
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE			1	1790-1900
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				4	1750-1900
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	CROCK/JAR			POORLY FIRED	6	1750-1900
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	CROCK LID				6	1750-1900
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE			POORLY FIRED	2	1750-1900
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	MUG/TANK. HANDLE			THIN	1	1750-1900
526	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	MUG/TANK. HANDLE			POORLY FIRED, THIN	2	1750-1900
526	Kitchen	Ceramic	Whiteware	Undecorated					1	1820-PRESENT
526	Kitchen	Ceramic	Whiteware	Shell-Edged	RIM	BLUE			1	1820-1860's
526	Kitchen	Ceramic	Whiteware	Cream-Colored Earthenware	HOLLOWWARE			THICK	1	1820-PRESENT
526	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)					9	1840-1900+
526	Kitchen	Ceramic	Unidentified Ceramic	Unidentified Earthenware				SMALL CERAMIC DISK, BUFF	1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
526	Kitchen	Glass	Table Glassware	Unidentified Tableglass					1	
526	Miscellaneous	Metal	Unidentified Object	Non-Ferrous Metal				COPPER STRIP	1	
526	Industrial	Ceramic	Kiln	Sagger					5	
526	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
526	Industrial	Ceramic	Kiln	Separator			C-SHAPE		3	
526	Industrial	Ceramic	Kiln	Separator			COIL		2	
** Subtotal **									165	
**	TU 04	N0995	E0998	FEATURE 8102 E SECOND FLUE LEVEL 02 19-23CMBD						
528	Architecture	Glass	Architectural Element	Window Glass					3	
528	Architecture	Manufactured	Brick	Fragment				VERY SMALL FRAGMENTS	2	
528	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	CROCK	BLUE		POORLY FIRED, TULIP PATTERN	1	1790-1900
528	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	CROCK RIM	BLUE		SWIRLS	1	1790-1900
528	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)					1	1840-1900+
528	Industrial	Ceramic	Kiln	Sagger					2	
528	Industrial	Ceramic	Kiln	Sagger				SMALL	1	
528	Industrial	Ceramic	Kiln	Separator			TACO		1	
528	Industrial	Ceramic	Kiln	Separator			SPOOL		1	
528	Industrial	Ceramic	Kiln	Separator			COIL		2	
528	Industrial	Ceramic	Kiln	Separator			FRAGMENT		1	
** Subtotal **									16	
**	TU 04	N0995	E0998	FEATURE 8102 SW SECOND FLUE LEVEL 01 05-20CMBD						
527	Architecture	Glass	Architectural Element	Window Glass					3	
527	Architecture	Metal	Machine Cut Nail, Common	Fragment					5	1815-1890
527	Architecture	Metal	Machine Cut Nail, Common	Fragment				BURNED	1	1815-1890
527	Architecture	Metal	Unidentified	Nail					1	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
527	Furniture	Ceramic	Miscellaneous	Flower Pot					1	
527	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	1	
527	Kitchen	Biological	Food Related	Tooth				PIG	1	
527	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	1	1750-1900
527	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				1	1750-1900
527	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	JUG LIP	BLUE			1	1790-1900
527	Kitchen	Ceramic	Whiteware	Undecorated	FLAT WARE				3	1820-PRESENT
527	Kitchen	Ceramic	Whiteware	Undecorated	HOLLOWWARE				1	1820-PRESENT
527	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown	HOLLOWWARE	BLUE			1	1820-PRESENT
527	Kitchen	Ceramic	Whiteware	Willow Transfer-Printed		BLUE			1	1820-PRESENT
527	Kitchen	Glass	Blown in Mold	Aqua					1	
527	Kitchen	Glass	Blown in Mold	Embossed				"..TIMORE..", AQUA, PANEL BOTTLE	1	
527	Kitchen	Glass	Machine Made Bottle	Embossed				"....RE, MD.", CLEAR, PANEL BOTTLE	1	1898-PRESENT
527	Kitchen	Glass	Machine Made Bottle	Clear					6	1898-PRESENT
527	Kitchen	Glass	Melted Glass	Light Green					1	
527	Kitchen	Glass	Unidentifiable Fragment	Milk Glass					2	
527	Miscellaneous	Stone	Miscellaneous Stone	Coal Slag				DISCARDED	1	
527	Industrial	Ceramic	Kiln	Separator			COIL		9	
527	Industrial	Ceramic	Kiln	Brick					1	
527	Personal	Ceramic	Tobacco Pipe	Ball Clay Bowl					1	
527	Activities	Glass	Miscellaneous	Lamp Glass					2	
** Subtotal **									48	

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
**	TU 05		FEATURE 8102	STRAT 1	15-23CMBD					
536	Architecture	Metal	Machine Cut Nail	2-4"				BURNED	1	1815-1890
536	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	HOLLOWWARE	BLUE			6	1790-1900
536	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER		1	1790-1900
536	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Floral	CROCK	BLUE		POORLY FIRED	7	1790-1900
536	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	2	1750-1900
536	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				12	1750-1900
536	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE				6	1750-1900
536	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE		WASTER		2	1750-1900
536	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		2	1750-1900
536	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	23	1840-1900+
536	Industrial	Ceramic	Kiln	Sagger					5	
536	Industrial	Ceramic	Kiln	Sagger				UNFIRED	1	
536	Industrial	Ceramic	Kiln	Other				FIRED CLAY	1	
** Subtotal **									69	
**	TU 05		FEATURE 8102	STRAT 2	23-34CMBD					
537	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE	WASTER		1	1790-1900
537	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	HOLLOWWARE	BLUE		POORLY FIRED	1	1790-1900
537	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE			POORLY FIRED	24	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
537	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER	POORLY FIRED	2	1750-1900
537	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		3	1750-1900
537	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				1	1750-1900
537	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Body w/Iron Oxide Wash	HOLLOWWARE				1	1750-1900
537	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE				1	1750-1900
537	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HANDLE			POORLY FIRED	2	1750-1900
537	Kitchen	Ceramic	Industrial Stoneware	Gray-Bodied (ginger beer)				BOTTLE-LIKE, POORLY FIRED	61	1840-1900+
537	Industrial	Ceramic	Kiln	Separator			FRAGMENT		5	
** Subtotal **									102	
**	TU 05			FEATURE 8102 STRAT 3		34-50CMBD				
538	Architecture	Metal	Machine Cut Nail, Common	2-4"					1	1815-1890
538	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE				3	1750-1900
538	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER	POORLY FIRED	1	1750-1900
542	Industrial	Metal	Miscellaneous	Other				POSS. KILN DOOR	1	
** Subtotal **									6	
**	TU 05			FEATURE 8102 NE STRAT 4		50-58CMBD				
540	Architecture	Metal	Machine Cut Nail, Common	> 4"					1	1815-1890
540	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER		3	1750-1900

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FS#/ LOT#	FUNCTIONAL GROUP	MATERIAL CLASS	ARTIFACT TYPE	DESCRIPTION	VESSEL	COLOR	WASTER	COMMENTS	COUNT	DATE RANGE
540	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze, Undecorated	HOLLOWWARE		WASTER	POORLY FIRED	1	1750-1900
540	Kitchen	Ceramic	Domestic Gray Stoneware	Gray Salt-Glaze w/Blue Decoration	PITCHER RIM	BLUE	WASTER		1	1790-1900
540	Industrial	Ceramic	Kiln	Sagger				SMALL	2	
** Subtotal **									8	
**	TU 05			FEATURE 8102 SW STRAT 4		50-58CMBD				
539	Architecture	Metal	Unidentified	Cut/Wrought Nail					1	
539	Kitchen	Biological	Food Related	Bone				LARGE MAMMAL	1	
** Subtotal **									2	
*** Total ***									3970	

APPENDIX III

PAWLEY STONEWARE VESSEL ANALYSIS

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
532	Bottle	Body	8	None	None	Unfired
557	Bottle	Base	1	Saltglaze	None	9 cm dia.
	Bottle	Base	1	None	None	Unfired
	Bottle	Base	1	None	None	Unfired
	Bottle	Base	1	None	None	Unfired
	Bottle	Base	1	Interior Iron Oxide Wash, Interior/Exterior Saltglaze	None	
	Bottle	Base	1	None	None	Unfired
	Bottle	Base	1	Interior Iron Oxide Wash, Interior/Exterior Saltglaze	None	Incised Line 6/16
	Bottle	Base	1	Interior Iron Oxide Wash, Interior/Exterior Saltglaze	None	Incised Line at Base
	Bottle	Base	1	Interior/Exterior Saltglaze	None	
	Bottle	Base	1	Interior/Exterior Saltglaze	None	
	Bottle	Base	2	None	None	Partially Fired Waster
	Bottle	Base	1	None	None	Partially Fired Waster
	Bottle	Base	1	None	None	Partially Fired Waster
563	Bottle	Base/Foot/Body	1	None	None	9cm dia
524	Bottle	Body	22	None	None	
526	Bottle	Body	8	None	None	Unfired; Small
529	Bottle	Body	6	None	None	Small, Unfired
534	Bottle	Body	4	None	None	Unfired, Small
555	Bottle	Body	14	None	None	Unfired; Small
555	Bottle	Body	1	Exterior Saltglaze	None	Handle Scar
556	Bottle	Body	1	None	None	Unfired; Medium
557	Bottle	Body	1	Interior/Exterior Saltglaze	None	
569	Bottle	Body	2	Interior/Exterior Saltglaze	None	Mend
569	Bottle	Body	2	None	None	Modified for Sagger, Mend
	Bottle	Body	3	None	None	Unfired Fragments
	Bottle	Body	4	None	None	Unfired
	Bottle	Body	1	None	None	Unfired Fragment
	Bottle	Body	13	None	None	Unfired
	Bottle	Body	11	None	None	Unfired
	Bottle	Body	12	None	None	Unfired Fragments
	Bottle	Body	3	None	None	Unfired
	Bottle	Body	1	None	None	Unfired
	Bottle	Body	16	None	None	Unfired Fragments
555	Bottle	Body/Shoulder	1	Interior/Exterior Saltglaze	None	Medium
	Bottle	Lip	2	None	Cobalt	Unfired
	Bottle	Lip	1	None	Cobalt	Unfired
	Bottle	Lip	2	None	Cobalt	Unfired
	Bottle	Lip	1	Interior/Exterior Saltglaze	Cobalt	
	Bottle	Lip	1	None	Cobalt	Unfired
565	Bottle	Lip	3	None	Cobalt Tulips	Fragments
524	Bottle	Lip	1	None	None	(3)
526	Bottle	Lip	1	None	None	Unfired
529	Bottle	Lip	1	Interior Iron Oxide, Exterior Saltglaze	None	
534	Bottle	Lip	1	Saltgalze	None	
562	Bottle	Lip	1	None	None	(15)
	Bottle	Lip	2	Saltglaze	None	
	Bottle	Lip	1	Saltglaze	None	
	Bottle	Lip	1	Interior/Exterior Saltglaze	None	
	Bottle	Lip	1	Saltglaze	None	
	Bottle	Neck	1	None	Cobalt	Unfired
557	Bottle	Neck	2	None	None	
	Bottle	Neck	1	None	None	Unfired
	Bottle	Neck	2	None	None	Unfired Fragment

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
	Bottle	Neck	1	Interior Iron Oxide Wash, Interior/Exterior Saltglaze	None	
525	Bottle	Neck and Shoulders	1	None	None	Unfired, Small, 2 mended pcs.
534	Bottle	Neck/Lip	1	Saltgalze	None	Tall
535	Bottle	Neck/Lip	2	None	None	
557	Bottle	Neck/Lip	1	Saltglaze	None	Modified for Kiln Furniture (12)
563	Bottle	Neck/Lip	1	None	None	Modified for Sagger/Separator
	Bottle	Neck/Shoulder	2	Alkaline or Lead Glaze	None	Rimless Neck
	Bottle	Neck/Shoulder	3	Saltglaze	None	
562	Bottle	Neck/Shoulder/Body	1	Interior/Exterior Saltglaze	None	Same Vessel as Crossmends from FS#'s 562,564, & 566
564	Bottle	Neck/Shoulder/Body	20	Interior/Exterior Saltglaze	None	Handle Scar on Shoulder, Crossmends with FS#'s 562,566, & 567
566	Bottle	Neck/Shoulder/Body	4	Interior/Exterior Saltglaze	None	Handle Scar on Shoulder, Crossmends with FS#'s 562,564, & 567
567	Bottle	Neck/Shoulder/Body	13	Interior/Exterior Saltglaze	None	10 pcs. Mend, 3 do not, Handle Scar on Shoulder, Crossmends with FS#'s 562,564, & 566
564	Bottle	Rim	1	None	None	Unfired
567	Bottle	Rim	1	None	None	Partially Fired
568	Bottle	Rim	1	Interior/Exterior Saltglaze	None	
529	Bottle	Rim/Lip	1	None	None	Unfired
563	Bottle	Shoulder	4	None	Cobalt	With Handle Scar
563	Bottle	Shoulder	1	None	Cobalt Tulips	Unfired, Small, With Handle Scar
565	Bottle	Shoulder	2	Saltglaze	Cobalt Tulips	2 Mend, Decoration Very Dark
534	Bottle	Shoulder	1	Exterior Saltgalze	None	25 cm dia.
555	Bottle	Shoulder	1	None	None	Unfired
557	Bottle	Shoulder	5	Saltglaze	None	2 sets of 2 mended sherds
557	Bottle	Shoulder	1	Fine Exterior Saltglaze	None	
564	Bottle	Shoulder	1	None	None	Unfired, Small
567	Bottle	Shoulder	1	None	None	Unfired, Small
	Bottle	Shoulder	1	Interior/Exterior Saltglaze	None	
	Bottle	Shoulder	1	None	None	Unfired Waster
	Bottle	Shoulder	1	Saltglaze	None	
	Bottle	Shoulder	1	Interior Iron Oxide Wash, Interior/Exterior Saltglaze	None	
	Bottle	Shoulder	1	None	None	Unfired
	Bottle	Shoulder	1	None	None	Unfired
	Bottle	Shoulder	5	None	None	Unfired
	Bottle	Shoulder	1	Saltglaze	None	
524	Bottle	Shoulder/Neck	4	None	None	
534	Bottle		2	None	None	Partially Fired
557	Bottle		18	None	None	Unfired, Body, 1small
	Bottle	Body	1	Interior Iron Oxide Wash, Exterior Saltglaze	Cobalt Speckled	
526	Bottle	Body	1	Exterior Saltglaze	None	Partially Fired
	Bottle	Body	1	Interior Iron Oxide Wash, Exterior Saltglaze	None	
555	Bottle	Lip	1	Saltglaze	None	Heavily Glazed

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
	Bottle	Neck	1	Interior/Exterior Iron Oxide Wash & Saltglaze	None	
535	Bottle/Flask	Base	2	None	None	Unfired, Mend
563	Bottle/Flask	Shoulder	1	None	Cobalt Tulips	Unfired
562	Bottle/Flask	Shoulder	1	Interior Glazed, Exterior Saltglaze	None	(4)
570	Bottle/Flask		3	Glazed	None	Heavy Glaze, Waster, 3 mends
565	Bottle/Jar	Shoulder	1	None	Cobalt Tulips	
525	Bowl/Pan	Body	1	None	None	23 cm dia.
	Chamber Pot	Rim	1	Saltglaze	Cobalt	
	Chamber Pot	Rim	1	Saltglaze	None	
557	Crock	Body	2	Saltglaze	Cobalt	
524	Crock	Body	1	None	None	
557	Crock	Body	1	Interior Iron Oxide/ Exterior Saltglaze	None	
	Crock	Lid	1	None	Cobalt Brushed Edge	Deep Foot/Lip
	Crock	Lid	1	None	Cobalt Brushed Edge	
555	Crock	Lid	1	Interior/Exterior Saltglaze	Cobalt Dashes	Partially Fired
	Crock	Lid	2	Saltglaze	Cobalt Dashes and Wavy Line	
526	Crock	Lid	1	Saltglaze	Debased Cobalt	Partially Fired; foot of lid
526	Crock	Lid	3	Interior/Exterior Saltglaze	None	Partially fired
529	Crock	Lid	1	None	None	Thick, Fragment, Unfired
562	Crock	Lid	1	None	None	Fragment, Partially Fired (13)
568	Crock	Lid w/ Handle	1	None	None	Fragment, Unfired
	Crock Lid	Cup Handle	1	None	Cobalt	Unfired
562	Crock Lid	Rim	1	None	Cobalt	25 cm dia., (7)
562	Crock Lid	Rim	1	None	Cobalt Wave	Decoration Around Rim, 27 cm dia. (9)
562	Crock Lid	Rim	1	None	Dashed Lines	Incised Potting Lines, Decoration Around Rim, 27 cm dia. (8)
563	Crock Lid		1	None	Cobalt Swag and Line	29 cm dia.
563	Crock Lid		1	None	Debased Wave	"Combed" Incised Lines, Decoration Around Rim, 31 cm dia
	Crock/Jar	Body	5	Interior/Exterior Iron Oxide Wash & Saltglaze	Cobalt	Heavy Glaze
565	Crock/Jar	Body	1	Interior/Exterior Saltglaze	Cobalt Tulips	
	Crock/Jar	Body	5	Interior/Exterior Iron Oxide Wash & Saltglaze	None	Heavy Glaze
	Crock/Jar	Body	1	Interior/Exterior Iron Oxide Wash & Saltglaze	None	
	Crock/Jar	Body/Handle	1	None	Cobalt	Waster Body Fragment with Ear-handle
562	Crock/Jar	Foot	3	Exterior Saltglaze	None	13 cm dia. (2)
562	Crock/Jar	Foot	1	Exterior Saltglaze	None	Heavy Glaze, 12 cm dia. (3)
	Crock/Jar	Lid	1	Saltglaze	Cobalt	
	Crock/Jar	Lid	2	None	Cobalt	Partially Fired Waster
	Crock/Jar	Lid	2	Saltglaze	Cobalt	Wide Decorative Border
	Crock/Jar	Lid	1	Saltglaze	Cobalt	Wide Decorative Border
	Crock/Jar	Lid	1	Saltglaze	Cobalt Border at Rim	
	Crock/Jar	Lid	1	Saltglaze	Cobalt Dashes	Decoration around Rim
	Crock/Jar	Lid	1	Saltglaze	Cobalt Dashes	Decoration around Rim
534	Crock/Jar	Lid	1	None	Cobalt Floral	
	Crock/Jar	Lid	1	None	Cobalt Floral	No Footring
566	Crock/Jar	Lid	1	None	Cobalt Swag and Line	33 cm dia.
534	Crock/Jar	Lid	1	None	None	Fragment
566	Crock/Jar	Lid	2	Saltglaze	None	
568	Crock/Jar	Lid	1	None	None	

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
	Crock/Jar	Lid	1	Saltglaze	None	
	Crock/Jar	Lid	1	None	None	
	Crock/Jar	Lid	1	Saltglaze	None	Cup-type Handle
	Crock/Jar	Lid	1	None	None	Waster Foot Fragment
	Crock/Jar	Lid	1	Saltglaze	None	
	Crock/Jar	Lid	1	Saltglaze	Trailed Cobalt Border (Parallel Lines with Wavy Line Between)	
	Crock/Jar	Lid	1	Saltglaze	Trailed Cobalt Border (Parallel Lines with Wavy Line Between)	
	Crock/Jar	Lid	1	Saltglaze	Trailed Cobalt Border (Parallel Lines with Wavy Line Between)	
566	Crock/Jar	Lid w/ Handle	2	Saltglaze	None	Handle is Concave
567	Crock/Jar	Neck	1	Interior Iron Oxide, Interior/Exterior Saltglaze	None	
	Crock/Jar	Rim	1	Saltglaze	None	Heavy Glaze, Waster
566	Crock/Jar	Shoulder	1	None	Cobalt Floral	
556	Crock/Jar	Shoulder	1	Interior/Exterior Saltglaze	Cobalt Floral (possible Tulip)	Interior iron oxide wash
567	Crock/Jar Lid	Foot	1	Saltglaze	None	
567	Disk		2	None	None	Fragments
557	Flask	Base	1	Saltglaze	None	
534	Flask	Body	1	Exterior Saltglaze, Interior Iron Oxide/ Lead Glaze	Cobalt	
564	Flask	Neck/Shoulder	5	Exterior Saltglaze, Interior Iron Oxide/ Lead Glaze	Cobalt	Heavy Exterior Glaze, Crossmends with FS#566
566	Flask	Neck/Shoulder	1	Exterior Saltglaze, Interior Iron Oxide/ Lead Glaze	Cobalt	Heavy Exterior Glaze, Crossmends with FS#564
534	Flask	Shoulder/Foot/Body	1	Interior Iron Oxide Wash, Exterior Saltglaze	None	Crossmends with FS#564,569,570, & 567
564	Flask	Shoulder/Foot/Body	3	Interior Iron Oxide Wash, Exterior Saltglaze	None	Crossmends with FS#569,570,534, & 567
567	Flask	Shoulder/Foot/Body	4	Interior Iron Oxide Wash, Exterior Saltglaze	None	Crossmends with FS#564,569,570, & 534
569	Flask	Shoulder/Foot/Body	3	Interior Iron Oxide Wash, Exterior Saltglaze	None	Crossmends with FS#564,570,534, & 567
570	Flask	Shoulder/Foot/Body	1	Interior Iron Oxide Wash, Exterior Saltglaze	None	Crossmends with FS#564,569,534, & 567
566	Flask		9	Exterior Saltglaze, Interior Iron Oxide/ Lead Glaze	None	Crossmends with FS#567
567	Flask		5	Exterior Saltglaze, Interior Iron Oxide/ Lead Glaze	None	Crossmends with FS#566
	Holloware	Base	2	None	Cobalt	Waster
565	Holloware	Base	2	None	Cobalt Tulips	
524	Holloware	Base	1	None	None	
527	Holloware	Base	1	Saltglaze	None	
564	Holloware	Base	2	Saltglaze	None	Mend
570	Holloware	Base	1	None	None	Fragment
	Holloware	Base	1	Interior/Exterior Iron Oxide Wash & Saltglaze	None	
	Holloware	Base	1	None	None	Waster
	Holloware	Base	7	None	None	Partially Fired & Unfired Fragments
	Holloware	Base	1	Interior/Exterior Saltglaze	None	
	Holloware	Base	1	Saltglaze	None	
	Holloware	Base	1	Saltglaze	None	
	Holloware	Base	1	Saltglaze	None	

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
	Holloware	Base	1	Saltglaze	None	
	Holloware	Base	1	Saltglaze	None	
	Holloware	Base	1	None	None	Unfired
	Holloware	Base	1	Saltglaze	None	
565	Holloware	Body	3	Interior Manganese/Iron Oxide Wash, Interior/Exterior Saltglaze	Cobalt	
	Holloware	Body	1	None	Cobalt	
	Holloware	Body	1	None	Cobalt	
	Holloware	Body	1	Interior Iron Oxide Wash & Saltglaze	Cobalt	
	Holloware	Body	1	Interior/Exterior Saltglaze	Cobalt	
	Holloware	Body	28	None	Cobalt	Waster
	Holloware	Body	3	None	Cobalt	Partially Fired Waster
	Holloware	Body	1	Interior/Exterior Saltglaze	Cobalt	
	Holloware	Body	2	Interior/Exterior Saltglaze	Cobalt	American Brown Stoneware
	Holloware	Body	1	None	Cobalt	Partially Fired Waster
	Holloware	Body	4	Interior Iron Oxide Wash, Interior/Exterior Saltglaze	Cobalt	
	Holloware	Body	2	None	Cobalt	Partially Fired Waster
	Holloware	Body	3	Saltglaze	Cobalt	
534	Holloware	Body	1	None	Cobalt Floral	
534	Holloware	Body	1	None	Cobalt Floral	
563	Holloware	Body	7	None	Cobalt Tulips	Fragments
	Holloware	Body	1	Interior/Exterior Saltglaze	Cobalt Tulips	Partially Fired
	Holloware	Body	1	Interior/Exterior Saltglaze	Cobalt Tulips	
	Holloware	Body	1	Saltglaze	Cobalt Tulips	Brushed and Incised Decoration
525	Holloware	Body	1	None	None	Fragment
526	Holloware	Body	7	Exterior Saltglaze	None	
527	Holloware	Body	1	None	None	
529	Holloware	Body	2	Interior/Exterior Glaze	None	Mend
534	Holloware	Body	4	Saltglaze	None	2 Mend
534	Holloware	Body	2	None	None	Partially Fired
534	Holloware	Body	2	Interior Manganese Oxide, Interior/Exterior Saltgalze	None	
540	Holloware	Body	2	None	None	Fragments
555	Holloware	Body	9	Interior/Exterior Saltglaze	None	
562	Holloware	Body	3	None	None	3 Vessels (1 shoulder [3 pcs.] Bottle/jar; 1 Body [2pcs]; 1 Shoulder [2pcs])(10-12)
565	Holloware	Body	19	None	None	
565	Holloware	Body	1	Exterior Manganese/Iron Oxide Wash, Exterior Saltglaze	None	Poss. Bottle, Heavy wash and glazing
566	Holloware	Body	7	None	None	
566	Holloware	Body	3	None	None	Unfired
569	Holloware	Body	4	Interior/Exterior Saltglaze	None	Small, 2 pcs. Mend
	Holloware	Body	8	None	None	
	Holloware	Body	4	None	None	Waster
	Holloware	Body	14	Interior Iron Oxide Wash, Interior/Exterior Saltglaze	None	Partially Fired Waster
	Holloware	Body	2	Saltglaze	None	Partially Fired
	Holloware	Body	2	Saltglaze	None	Partially Fired
	Holloware	Body	2	Saltglaze	None	

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
	Holloware	Body	2	Iron Oxide Wash & Saltglaze	None	
	Holloware	Body	1	None	None	Waster
	Holloware	Body	5	Interior/Exterior Saltglaze	None	Partially Fired
	Holloware	Body	6	Exterior Saltglaze	None	Partially Fired
	Holloware	Body	30	Saltglaze	None	Partially Fired Fragments
	Holloware	Body	10	Saltglaze	None	
	Holloware	Body	4	None	None	Waster
	Holloware	Body	2	Saltglaze	None	
	Holloware	Body	1	Saltglaze	None	
	Holloware	Body	1	Saltglaze	None	
	Holloware	Body	3	Saltglaze	None	
	Holloware	Body	3	None	None	Unfired
	Holloware	Body	1	Saltglaze	None	
525	Holloware	Foot	1	Exterior Saltglaze	None	Flaring
562	Holloware	Handle	5	Saltgalze	Cobalt	Large, 3 glazed,1 decorated
566	Holloware	Handle	1	Saltglaze	Cobalt	Large
565	Holloware	Handle	6	None	Cobalt Tulips	2 Mends, 2 Large, 3 Medium
534	Holloware	Handle	1	None	None	Large
562	Holloware	Handle	2	None	None	Large
562	Holloware	Handle	4	None	None	Small, Fragments
562	Holloware	Handle	1	None	None	Large, 2 pcs. Mended
562	Holloware	Handle	1	None	None	Medium, 2 pcs. Mended
564	Holloware	Handle	1	None	None	Fragment, Large
	Holloware	Handle	1	None	None	Unfired Fragment
534	Holloware	Rim	1	None	Cobalt Swag	
534	Holloware	Rim	2	None	None	16 cm and 12 cm dia.
534	Holloware	Rim	1	Saltglaze	None	Heavy glaze
566	Holloware	rim	1	Saltglaze	None	Large
	Holloware	Rim	2	Saltglaze	None	
	Holloware	Rim	2	Saltglaze	None	Fine Glaze, Folded Lip
	Holloware	Rim	1	Saltglaze	None	
566	Holloware	Shoulder	2	None	None	
563	Holloware		3	None	Cobalt Tulips	Unfired, Large
524	Holloware		1	Saltglaze	None	Handle Scars
562	Holloware		62	Saltgalze	None	Vessel Fragments
570	Holloware		4	None	None	Vessel Wasters
538	Hollowware	Body	4	Exterior Saltglaze	None	
	Jar	Base	1	Interior/Exterior Saltglaze	None	
	Jar	Base	2	Interior/Exterior Saltglaze	None	
526	Jar	Body	6	Exterior Saltglaze	None	Partially Fired; Mend; all base
534	Jar	Body	5	Exterior Saltglaze	None	Partially Fired, Brown, Cross Mends w/ FS#562
562	Jar	Body	6	Exterior Saltglaze	None	Strap Handle Scar, Partially Fired, Brown, Cross Mends w/ FS#534
569	Jar	Body/Rim	4	Interior/Exterior Saltglaze	None	Fine glaze (SA FS#529), Includes Lip - 10 cm dia., Narrow Shoulder, Pot Shaped ?
562	Jar	Foot	2	Saltgalze	Cobalt	19 cm dia. (1)
569	Jar	Lid	1	None	Cobalt	Fragment
	Jar	Neck/Shoulder	1	Interior/Exterior Saltglaze	None	
	Jar	Rim	1	None	Cobalt	Unfired Waster
	Jar	Rim	1	Interior/Exterior Saltglaze	Cobalt	
	Jar	Rim	1	Interior/Exterior Saltglaze	Cobalt Floral	
	Jar	Rim	1	Interior/Exterior Saltglaze	Cobalt Tulips	
529	Jar	Rim	2	Saltglaze	None	Thin, 10 cm dia., SA FS# 569

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
	Jar	Rim	1	Interior/Exterior Saltglaze	None	
	Jar	Rim	1	Interior/Exterior Saltglaze	None	
	Jar	Rim	1	Interior/Exterior Saltglaze	None	Folded Rim, Fine Glaze
	Jar	Rim	2	Interior/Exterior Iron Oxide Wash & Saltglaze	None	Straight Rim, Fine Glaze
524	Jar	Rim/Shoulder	1	None	Cobalt Tulips	(4)
524	Jar	Rim/Shoulder	1	None	Cobalt Tulips	(5)
555	Jar	Rim/Shoulder	1	Exterior Saltglaze	None	Partially Fired; Flat Rim
529	Jar	Shoulder	2	Exterior Saltglaze	None	Large, Mend
568	Jar	Shoulder	4	Exterior Saltglaze	None	(Mend)
557	Jar	Shoulder/Neck	1	Saltglaze	Cobalt Tulips	(2)
	Jar	Rim	2	None	None	Unfired, Folded Rim
	Jar	Rim	1	Saltglaze	None	
557	Jar/Pan	Base	1	Saltglaze	None	21 cm dia. , (1), Crossmends with FS# 526
564	Jug	Neck/Shoulder/Body/Base	35	Exterior Iron Oxide/Saltglaze	Cobalt Spots	2 Gallons (Marked above Handle Scar), Crossmends with FS#'s 566,567, &569
566	Jug	Neck/Shoulder/Body/Base	8	Exterior Iron Oxide/Saltglaze	Cobalt Spots	2 Gallons (Marked above Handle Scar), Crossmends with FS#'s 564,567, &569
567	Jug	Neck/Shoulder/Body/Base	27	Exterior Iron Oxide/Saltglaze	Cobalt Spots	2 Gallons (Marked above Handle Scar), Crossmends with FS#'s 564,566, &569
569	Jug	Neck/Shoulder/Body/Base	1	Exterior Iron Oxide/Saltglaze	Cobalt Spots	2 Gallons (Marked above Handle Scar), Crossmends with FS#'s 564,566, &567
524	Jug/Jar	Shoulder	1	Interior/exterior Saltglaze	None	
563	Jug/Mug	Handle	2	None	Cobalt Tulips	Fragments, Small
557	Kiln Furniture		1	Saltglaze	None	
563	Kiln Furniture		18	None	None	Fragments
564	Kiln Furniture		29	None	None	
567	Kiln Furniture		27	None	None	Fragments
569	Kiln Furniture		9	None	None	
524	Lid		1	Saltglaze	Cobalt Dashes	Fragment (2)
557	Lid		1	Saltglaze	Cobalt Dashes	(5)
557	Lid		2	Saltglaze	None	Fragments, 3 mends
557	Lid		4	Saltglaze	Trailed Wave	(6-9)
557	Mug	Handle Fragments	2	Saltglaze	None	Crossmend with FS# 526
	Pan	Base	1	Interior Lead Glaze	None	
	Pan	Base	1	Lead Glaze	*Trailed Slip*	*Redware*
563	Pan	Body/Foot	1	Interior/Exterior Saltglaze	Cobalt Tulips	
557	Pan	Rim	1	Interior/Exterior Saltglaze	None	With lug handle (4)
	Pan	Rim/Spout	1	Lead Glaze	None	Redware, Numerals "XV" Scratched into Glaze
562	Pan		2	Interior/Exterior Saltgalze	Cobalt Dashes	Partially Fired, Decoration Under Rim (6)
534	Pan		1	Interior/Exterior Saltglaze	None	Fragment
	Pipe	Bowl	1	Saltglaze	Mask/Face Motif	Press Molded
568	Pipe	Bowl	1	None	None	Fragment, Molded, Unfired
529	Pitcher	Body	1	Exterior Saltglaze	None	Partially Fired, Fragment
557	Pitcher	Body	1	Saltglaze	None	(3)
563	Pitcher	Body/Shoulder	3	Interior/Exterior Saltglaze	Cobalt Tulips	
565	Pitcher	Collar	1	Interior/Exterior Saltglaze	Cobalt Tulips	
567	Pitcher	Handle	1	Heavy Saltglaze	Cobalt	

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
524	Pitcher	Handle	1	Saltglaze	None	(1)
555	Pitcher	Handle	1	Saltglaze	None	
557	Pitcher	Handle	1	Saltglaze	None	(11)
568	Pitcher	Handle	2	Saltglaze	None	Medium, Unfired, Mend
557	Pitcher	Handle Fragment	1	Saltglaze	None	
562	Pitcher	Lip	1	None	Cobalt Wave	Partially Fired, Decoration Around Rim (5)
527	Pitcher	Rim	1	Saltglaze	Cobalt	
534	Pitcher/Jar	Foot	1	None	None	Partially Fired, 2 pcs. Mended
	Pitcher	Rim	1	Interior/Exterior Saltglaze	Cobalt	Collar Rim
	Pitcher	Rim	1	Interior/Exterior Saltglaze	Cobalt	Collar Rim/Spout
	Pitcher	Rim	1	Interior/Exterior Saltglaze	Cobalt	Double Line Incised Around Rim
	Pitcher	Rim	1	Interior/Exterior Saltglaze	Cobalt Floral	
534	Pitcher	Rim	1	None	Debased Cobalt	
540	Pitcher	Rim	1	Saltglaze	None	Fragment
	Pitcher	Rim	1	Interior/Exterior Saltglaze	None	
557	Pitcher	Rim	1	Saltglaze	Trailed Slip	(10)
	Pitcher	Spout	1	Interior/Exterior Saltglaze	Cobalt Wavy Line	Decoration Around Rim
569	Pitcher/Bottle	Handle	2	None	Cobalt	Small dia., Mend, Decoration Around Base
534	Pitcher/Bottle	Shoulder	1	Interior/Exterior Saltglaze	None	
537	Pitcher/Jar	Body	81	None	None	Unfired
	Pitcher/Jar	Base	1	Interior/Exterior Saltglaze	Cobalt	
	Pitcher/Jar	Base	1	Interior/Exterior Saltglaze	Cobalt	
	Pitcher/Jar	Base	1	Interior/Exterior Saltglaze	Cobalt	
	Pitcher/Jar	Base	1	Interior/Exterior Saltglaze	Cobalt	American Brown Stoneware
510	Pitcher/Jar	Base	1	None	None	Unfired, 6 cm dia.
524	Pitcher/Jar	Base	9	None	None	
532	Pitcher/Jar	Base	2	None	None	Partially Fired
536	Pitcher/Jar	Base	3	None	None	
541	Pitcher/Jar	Base	1	None	None	Unfired, 8cm dia.
555	Pitcher/Jar	Base	1	Exterior Saltglaze	None	Partially Fired
524	Pitcher/Jar	Base/Foot	1	Interior/Exterior Glaze	None	28 cm dia.
555	Pitcher/Jar	Base/Foot	1	Exterior Saltglaze	None	Partially Fired
510	Pitcher/Jar	Body	1	None	Cobalt	Partially Fired
523	Pitcher/Jar	Body	4	Interior/Exterior Saltglaze	Cobalt	(2-5)
523	Pitcher/Jar	Body	3	None	Cobalt	Partially Fired Fragments, 2 sets of 2 mended sherds (12-14)
532	Pitcher/Jar	Body	1	Interior/Exterior Saltglaze	Cobalt	Fired
532	Pitcher/Jar	Body	1	Interior Iron Oxide wash w/ Saltglaze/Exterior Saltglaze	Cobalt	(1)
537	Pitcher/Jar	Body	1	None	Cobalt	Fragment, Possible Crossmend w/ Vessel 4 FS#324
568	Pitcher/Jar	Body	1	Interior/Exterior Saltglaze	Cobalt	
	Pitcher/Jar	Body	1	Interior Iron Oxide Wash, Interior/Exterior Saltglaze	Cobalt	
526	Pitcher/Jar	Body	1	Interior/Exterior Saltglaze	Cobalt Floral Exterior	Partially Fired

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
526	Pitcher/Jar	Body	2	Exterior Saltglaze	Cobalt Tulip	Partially Fired; One has interior iron oxide wash
532	Pitcher/Jar	Body	4	Saltglaze	Cobalt Tulips	(2-5)
536	Pitcher/Jar	Body	4	None	Cobalt Tulips	(4-7)
563	Pitcher/Jar	Body	1	Interior/Exterior Saltglaze	Cobalt Tulips	
565	Pitcher/Jar	Body	17	None	Cobalt Tulips	Unfired
	Pitcher/Jar	Body	1	Saltglaze	Cobalt Wave	
501	Pitcher/Jar	Body	6	Saltglaze	None	
510	Pitcher/Jar	Body	5	None	None	
523	Pitcher/Jar	Body	4	Interior/Exterior Saltglaze	None	
523	Pitcher/Jar	Body	40	None	None	Partially Fired
523	Pitcher/Jar	Body	1	None	None	Unfired, Thin
523	Pitcher/Jar	Body	1	Interior/Exterior Saltglaze	None	7 mended Fragments (1)
524	Pitcher/Jar	Body	127	None	None	Unfired Med.
524	Pitcher/Jar	Body	5	None	None	Small
524	Pitcher/Jar	Body	11	None	None	Med.-Lg.
532	Pitcher/Jar	Body	2	Exterior Saltglaze	None	Fired, 2 mends
532	Pitcher/Jar	Body	8	None	None	Fired, Small Vessel
535	Pitcher/Jar	Body	4	Saltglaze	None	Fragments
536	Pitcher/Jar	Body	10	None	None	Unfired
536	Pitcher/Jar	Body	6	None	None	Unfired
536	Pitcher/Jar	Body	17	None	None	Fired
537	Pitcher/Jar	Body	1	None	None	Unfired
537	Pitcher/Jar	Body	1	None	None	Handle Scar
540	Pitcher/Jar	Body	1	Saltglaze	None	2 mends
541	Pitcher/Jar	Body	2	None	None	
541	Pitcher/Jar	Body	1	Exterior Saltglaze	None	
541	Pitcher/Jar	Body	1	Interior Iron Oxide Wash, Interior/Exterior Saltglaze	None	
555	Pitcher/Jar	Body	2	None	None	Unfired
566	Pitcher/Jar	Body	3	None	None	Unfired
567	Pitcher/Jar	Body	1	Interior/Exterior Saltglaze	None	
	Pitcher/Jar	Body/Handle	4	Saltglaze	None	3- V-Form and 1- Ball Scar
524	Pitcher/Jar	Collar, Rim and Spout	1	None	Cobalt	Incised Lines Below Rim, Decoration Around Spout, 13 cm dia. (3)
523	Pitcher/Jar	Foot	1	Interior/Exterior Saltglaze	Cobalt	3 pcs. Mended, (11)
565	Pitcher/Jar	Foot	1	None	Cobalt Tulips	
523	Pitcher/Jar	Foot	1	Interior Iron/Manganese Oxide Wash, Exterior Saltglaze	None	
523	Pitcher/Jar	Foot	1	None	None	Unfired Fragment (6)
523	Pitcher/Jar	Foot	1	None	None	Unfired Fragment
524	Pitcher/Jar	Foot	1	None	None	Unfired
529	Pitcher/Jar	Foot	1	Interior/Exterior Saltglaze	None	19 cm dia.
532	Pitcher/Jar	Foot	1	Exterior Saltglaze	None	
537	Pitcher/Jar	Foot	2	None	None	Unfired
	Pitcher/Jar	Handle	8	Saltglaze	Cobalt	Strap Type
524	Pitcher/Jar	Handle	5	None	None	Unfired
524	Pitcher/Jar	Handle	2	Glazed	None	
524	Pitcher/Jar	Handle	1	None	None	Unfired, Knob , 5 cm dia.
532	Pitcher/Jar	Handle	1	None	None	Large Vessel (11)
532	Pitcher/Jar	Handle	2	Saltglaze	None	(12-13)
537	Pitcher/Jar	Handle	1	Saltglaze	None	
537	Pitcher/Jar	Handle	1	None	None	
	Pitcher/Jar	Handle	3	Saltglaze	None	Strap-type Handles
	Pitcher/Jar	Handle	3	None	None	6/16 x 3/4 Strap-type Handles
	Pitcher/Jar	Handle	2	Saltglaze	None	1/4 x 3/4 Strap-type

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
524	Pitcher/Jar	Lip	5	None	None	Unfired , sizes: 4cm -1, 3cm -1
524	Pitcher/Jar	Lip	1	None	None	Waster
524	Pitcher/Jar	Lip	1	None	None	Waster, Modified for Kiln Furniture
537	Pitcher/Jar	Lip	2	Saltglaze	None	
536	Pitcher/Jar	Neck	1	Interior/Exterior Saltglaze	Cobalt	Partially Fired (2)
524	Pitcher/Jar	Neck	1	None	None	Unfired
536	Pitcher/Jar	Neck	1	None	None	
537	Pitcher/Jar	Neck	2	None	None	Unfired
523	Pitcher/Jar	Neck/Lip	3	None	None	Fragments, 1 lg. 2 med. (30 32)
523	Pitcher/Jar	Rim	2	Saltglaze	Cobalt	Fragments, 1 Decorated (23-24)
536	Pitcher/Jar	Rim	1	Iron oxide, Saltglaze	Cobalt	Fragment (3)
524	Pitcher/Jar	Rim	20	Interior/Exterior Saltglaze	Cobalt Tulips & Dots	11 cm dia., Tulips on Body, Dots Around Collar (4)
523	Pitcher/Jar	Rim	1	Interior/Exterior Saltglaze, Interior Iron Oxide Wash	None	(25)
523	Pitcher/Jar	Rim	4	None	None	(26-29)
524	Pitcher/Jar	Rim	4	None	None	Unfired , sizes: 4cm -2, 3cm -1
532	Pitcher/Jar	Rim	1	Saltglaze	None	(8)
536	Pitcher/Jar	Rim	1	None	None	Unfired
536	Pitcher/Jar	Rim	1	None	None	Thick (1)
537	Pitcher/Jar	Rim	3	None	None	Unfired
565	Pitcher/Jar	Shoulder	3	Exterior Saltglaze	Cobalt Tulips	Decoration Very Dark
523	Pitcher/Jar	Shoulder	21	Saltglaze	Cobalt Wave	Poss. Jar Lid, Curved (21)
523	Pitcher/Jar	Shoulder	1	Exterior Saltglaze	None	
523	Pitcher/Jar	Shoulder	1	Interior/Exterior Saltglaze	None	
524	Pitcher/Jar	Shoulder	28	None	None	Unfired Med.
537	Pitcher/Jar	Shoulder	2	None	None	Unfired
568	Pitcher/Jar	Shoulder	1	Exterior Saltglaze	None	
510	Pitcher/Jar	Shoulder/Neck	1	None	Cobalt Tulips	Incised Lines
523	Pitcher/Jar		1	None	Cobalt	Possible Mend with FS#524 (8)
523	Pitcher/Jar		2	None	Cobalt	Partially Fired (9-10)
524	Pitcher/Jar		1	Saltglaze	Cobalt	Fired
532	Pitcher/Jar		2	Saltglaze	Cobalt	(9-10)
536	Pitcher/Jar		1	None	Cobalt	Modified for Kiln Furniture (8)
536	Pitcher/Jar		1	Interior/Exterior Iron Oxide and Saltglaze	Cobalt	Possibly Modified , 7 mended pcs. (9)
523	Pitcher/Jar		1	Saltglaze	Cobalt Wave	Large (20)
524	Pitcher/Jar		4	Exterior Iron Oxide Wash, Saltglaze Exterior Trim	Cobalt Wave	Incised Concentric lines Interior, Decoration Around Rim, 35 cm dia., W/ Footring (1)
524	Pitcher/Jar		3	Interior/Exterior Iron Oxide Wash and Saltglaze	Cobalt Wave	Concentric Potting Lines, Decoration Around Rim, 32 cm dia. (2)
523	Pitcher/Jar		2	Saltglaze	Dashed Lines	Large Pieces (18-19)
523	Pitcher/Jar		1	Interior/Exterior Iron Oxide Wash	Debased Trailed Waves	Mends with FS#524 (17)
501	Pitcher/Jar		1	None	None	Large, Fragment
523	Pitcher/Jar		7	Interior Iron Oxide/Manganese Oxide Wash, Exterior Heavily Saltglaze	None	4 Mends
523	Pitcher/Jar		3	None	None	Unfired, Very Thin
523	Pitcher/Jar		5	Exterior Saltglaze	None	Partially Fired
523	Pitcher/Jar		6	Heavy Saltglaze	None	Fragments
524	Pitcher/Jar		3	None	None	Mends 2 of 2 pieces, 1 of 3 pieces

FS#	Vessel Form	Vessel Part	Count	Glaze	Decoration	Comments
524	Pitcher/Jar		12	Interior/Exterior Saltglaze	None	Small
524	Pitcher/Jar		1	Iron Oxide Wash, Saltglaze	None	
524	Pitcher/Jar		9	None	None	sizes: 4cm -3, 5cm -3, 7cm 2, 9cm-1
532	Pitcher/Jar		5	Saltglaze	None	Partially fired
532	Pitcher/Jar		2	None	None	Unfired
532	Pitcher/Jar		3	None	None	Small, Partially Fired
532	Pitcher/Jar		1	Saltglaze	None	(6)
532	Pitcher/Jar		1	Heavily Saltglaze	None	(7)
534	Pitcher/Jar		10	None	None	Unfired/Partially Fired
536	Pitcher/Jar		10	None	None	
562	Pitcher/Jar		15	None	None	Partially Fired, 12 pcs. Mend (14)
523	Pitcher/Jar		2	Interior/Exterior Iron Oxide Wash	Trailed Wave	2 Fragment, (15-16)
526	Pitcher/Mug	Handle	3	None	None	Handle fragments
	Pot/Bowl	Body/Rim	2	None	Cobalt	10 cm dia.
563	Sagger	Base	5	None	None	Sizes: 10 cm -2, 18 cm -2, 20 cm -1
567	Sagger	Base	5	None	None	Fragments
	Sagger	Base	2	Saltglaze	None	
	Sagger	Body	5	None	None	Unfired
	Sagger	Body	1	None	None	Unfired Fragment
	Sagger	Body	1	None	None	Salt Caked, Wad of Clay from Stacking Attached to Rim
	Sagger	Body	1	None	None	
	Sagger	Body	1	Saltglaze	None	
	Sagger	Body	1	None	None	Unfired
565	Sagger	Foot	1	None	Cobalt Tulips	13 cm dia.
	Sagger	Rim	5	None	Cobalt	Salt Caked
565	Sagger	Rim	3	None	Cobalt Tulips	Unfired, 2 mend, 11 cm dia.
565	Sagger	Rim	2	None	Cobalt Tulips	Fragments, Medium
565	Sagger	Rim	1	None	Cobalt Tulips	Small, 4 cm dia.
563	Sagger	Rim	6	None	None	Sizes: 17 cm -2, 14 cm -2, 12 cm -1
567	Sagger	Rim	10	None	None	Fragments; sizes 13 cm -2, 14 cm -1, 15 cm -1, 17 cm -1, 11 cm -2, 4 cm -1
	Sagger	Rim	2	Saltglaze	None	
	Sagger		3	None	Cobalt	Modified from Waster Bottle Neck/Lip, With Holes Cut in Opposites Sides of Neck
562	Sagger		48	None	None	
566	Sagger		8	None	None	Sizes: 5 cm -3, 10 cm -2, 20 cm -1, indeterminate -2
567	Sagger		2	None	None	Fragments
568	Sagger		3	None	None	Fragments
	Sagger	Body	3	None	None	Modified from Bottle Neck/Lip
	Sagger	Rim	1	None	None	
563	Separator		3	None	None	
568	Separator		1	None	None	
534	Spall		1	Saltglaze	None	Heavy glaze
564	Spall		16	Interior/Exterior Saltglaze	None	Highly glazed, Poss. Kiln Furniture, 6 mended

APPENDIX IV

COMPARATIVE DATA FOR ALEXANDRIA POTTERY

REPRINTED COURTESY OF ALEXANDRIA ARCHAEOLOGY

CITY OF ALEXANDRIA, VIRGINIA

THE POTTERS' ART

SALT-GLAZED STONEWARE OF NINETEENTH-CENTURY ALEXANDRIA

By
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Museum Series Editors

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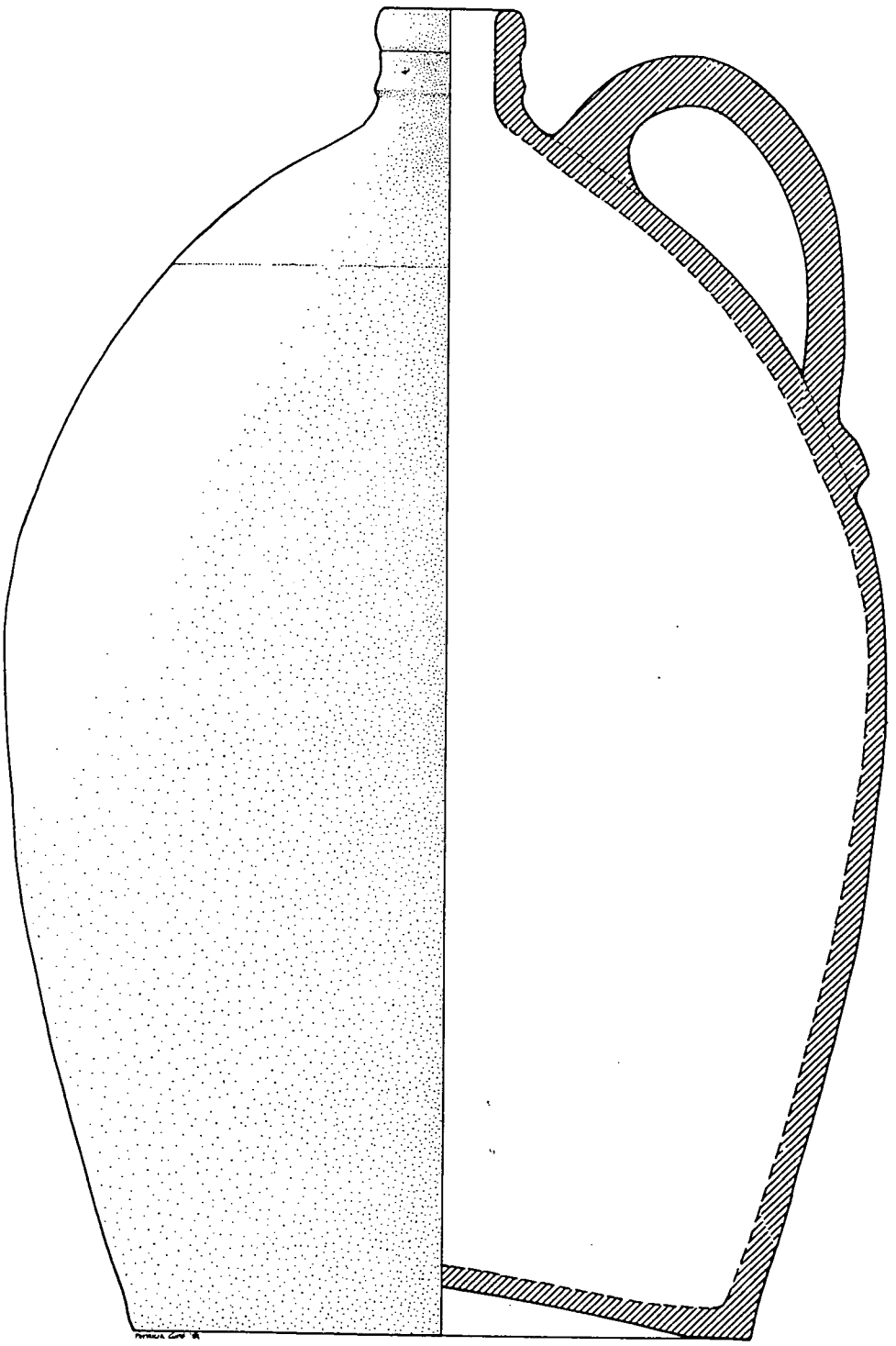
Appendix III

John Swann
A Guide to Specific Characteristics

John Swann's vessels show an unselfconscious beauty, not affected by current fashion. His early forms were predominantly brown wares with the upper section dipped into an iron wash. later he produced a line of gray stoneware with minimal decoration using cobalt glaze. This information and the rest contained in this appendix is based upon examination of about a dozen intact vessels marked with Swann's stamp, several dozen more vessels attributed to Swann, and finally, on the analysis of numerous sherds from the Wilkes Steet Pottery Site.

Some of his cobalt designs are simple, almost carelessly brushed drawings of flower forms. Their leaves are simple round forms of the same size, often repeated around the shoulder of his jars. Pigment for this leaf shape could have been dabbed on with a brush or with a fingertip. Simple attempts at shading were done by wiping the base of each leaf with a dry brush or finger while the cobalt glaze was still wet. This created a gradation of color, exposing the lighter surface of the pot where the cobalt was completely wiped off. More emphasis on decoration may have been required once the merchant Hugh Smith placed his first large order with Swann. In any event, design motifs (flowers, graduated leaves, swag and tassel, chain, zigzag), which are associated with later Alexandria stoneware, are first seen on Swann's pottery made between 1820-1825.

Judging from the few surviving vessels attributable to Swann and from sherds found at the Wilkes Street site, it appears that Swann marked relatively few wares with his name. However, most of the vessels probably had capacity marks stamped on the shoulder.



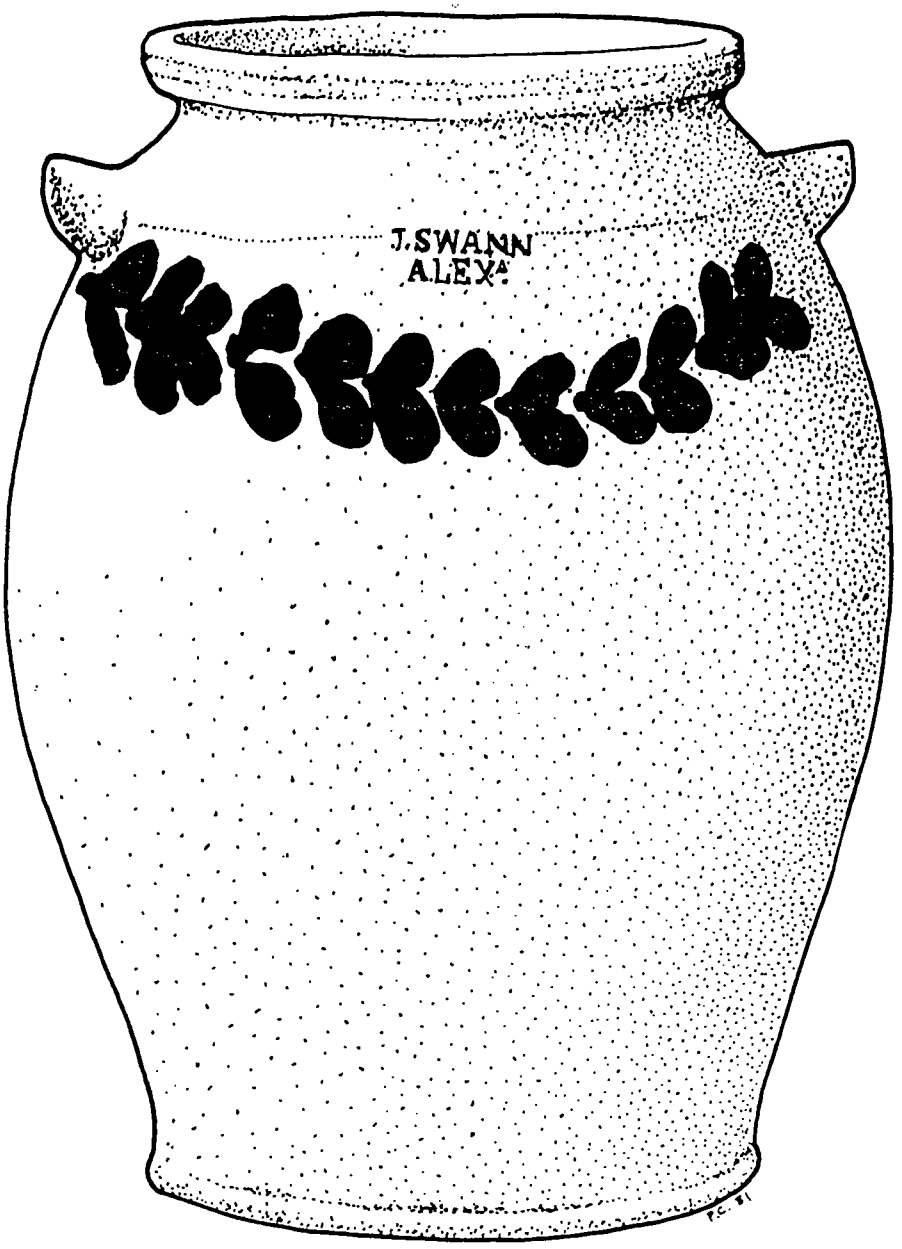
JUG

MARK: 3
HEIGHT: 38 cm.
RIM DIAM.: 4.5 cm.

FORM: Swann's jugs are usually ovoid in form. Jug necks are reeded and may have as many as five or six graduated rings below a thickened rim.

DECORATION: Jugs are almost always brown glazed and are dipped to the shoulder in an iron wash. Drips are allowed to flow freely down the sides. No jugs attributable to Swann are decorated in cobalt blue.

HANDLES: Swann's strap handles are usually pulled from the base of the neck. Handle forms are usually plain with an off-center ridge or groove along the length of the handle. The variations can be explained as the work of different apprentices assigned to the task of making handles. Occasionally, one small fingerprint is impressed into the base of the handle, but more often there is no mark.


J. SWANN
ALEX.A

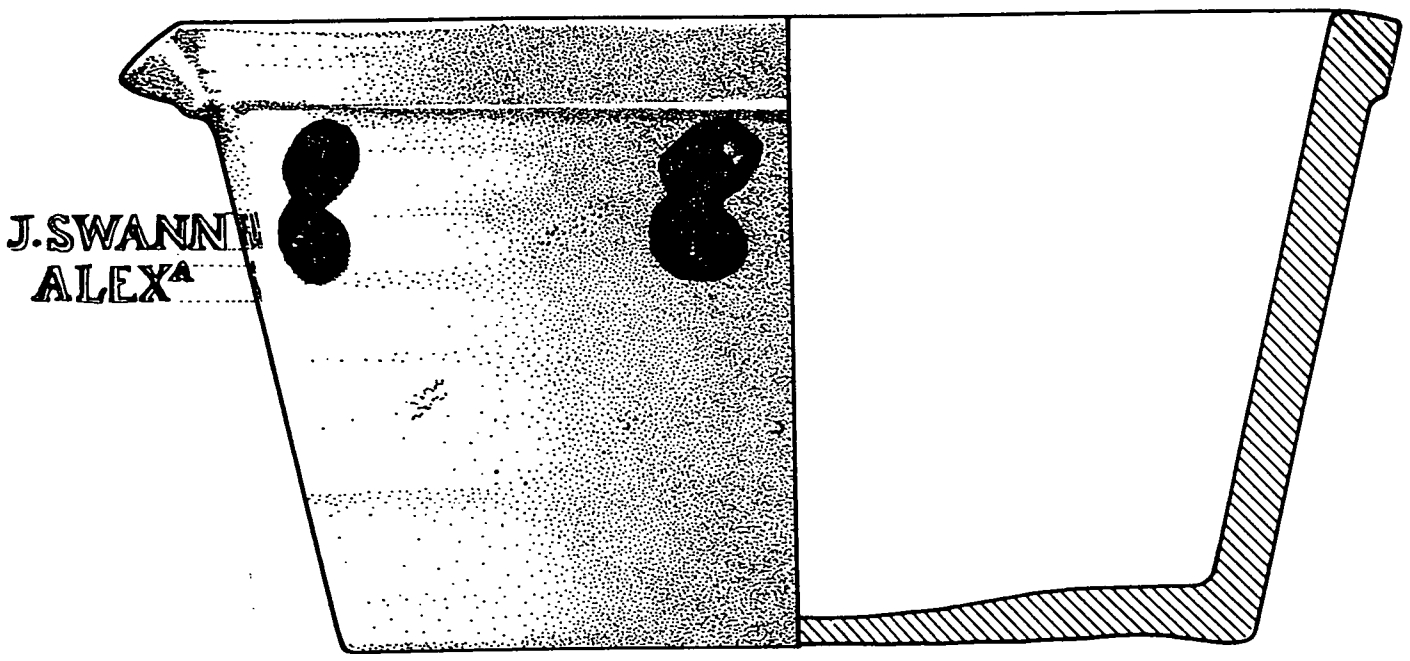
JAR

MARK: J. SWANN
ALEXANDRIA
HEIGHT: 38 cm.
RIM DIAM.: 18 cm.

FORM: Swann's jar forms are generally ovoid with plain rims which are rounded or squared off. His earliest rims often exhibit four or five rows of narrow tooling on the exterior rim edge and on the neck where it joins the shoulder. The slight ridge and outward flare at the base are characteristic of Swann.

DECORATION: Typical of Swann's early cobalt decoration on grey stoneware, small regular round leaves encircle the jar. On one side they follow the incised line; on the other side, the "vine" curves below Swann's mark which is impressed along the single incised line.

HANDLES: The lug handles on Swann's jars are usually thin and small in proportion to the vessel size. Jar handles are normally shaped by hand (as opposed to being thrown on the wheel). They are attached at the shoulder opposite each other along the incised line. Their distinctive characteristic during Swann's period is their slight upward flare, for ease in lifting. Often the ends of each handle are pinched off.


J.SWANN
ALEXA

MILK PAN

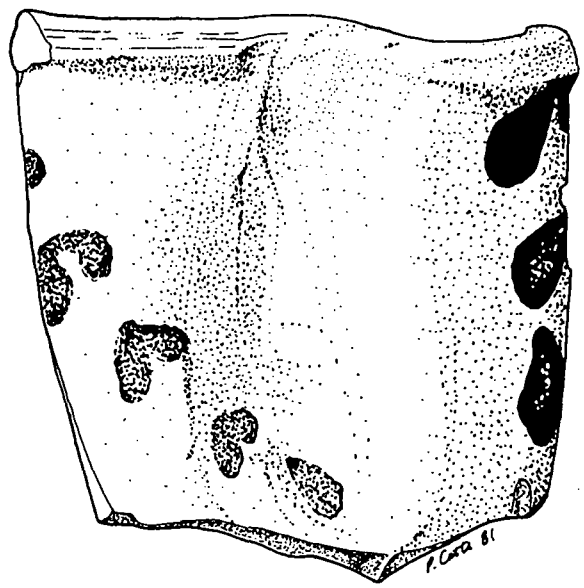
MARK: JOHN SWANN
ALEX.
HEIGHT: 11 cm.
RIM DIAM.: 21.5 cm.

FORM: The illustrated vessel is the only known marked example of a Swann milk pan. Its rim is narrow and squared off. Its sides are less flared and the pan is deeper than later pans made at the Pottery.

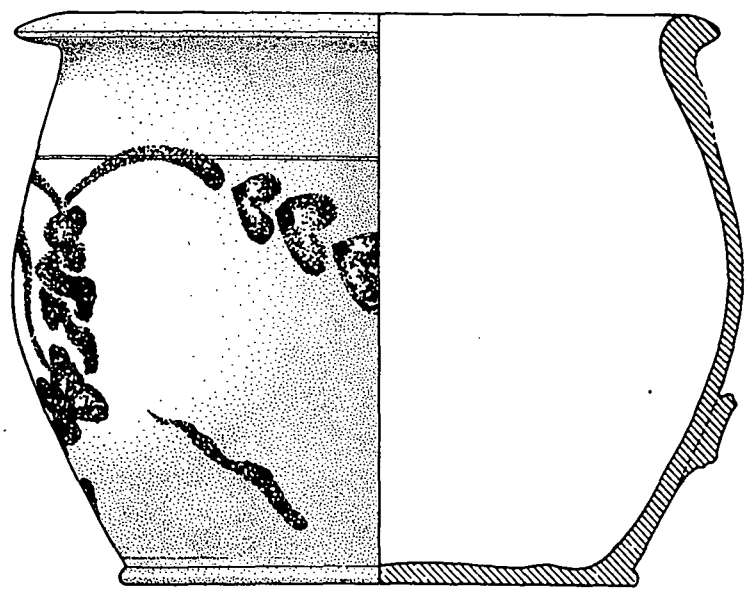
DECORATION: This grey salt-glazed milk pan represents a good example of Swann's early cobalt designs which are simple dabs of blue placed evenly around the incised line under the rim.

HANDLES: None

Elements of Swann's Design which were Antecedents of the Later "Alexandria Motif"



Separate graduated leaves trail from a pitcher rim to the base of the spout

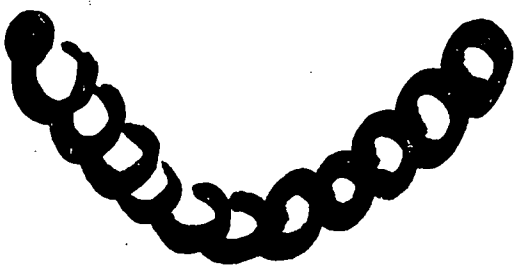


Paired leaves are placed close together and connect with a bent branch. Later the branches will connect with the central flower to form the "Alexandria motif"

Other Motifs that Began with Swann and Continued Through the B.C. Milburn Period

Swag and tassel

Graduated leaves on vines



Chain

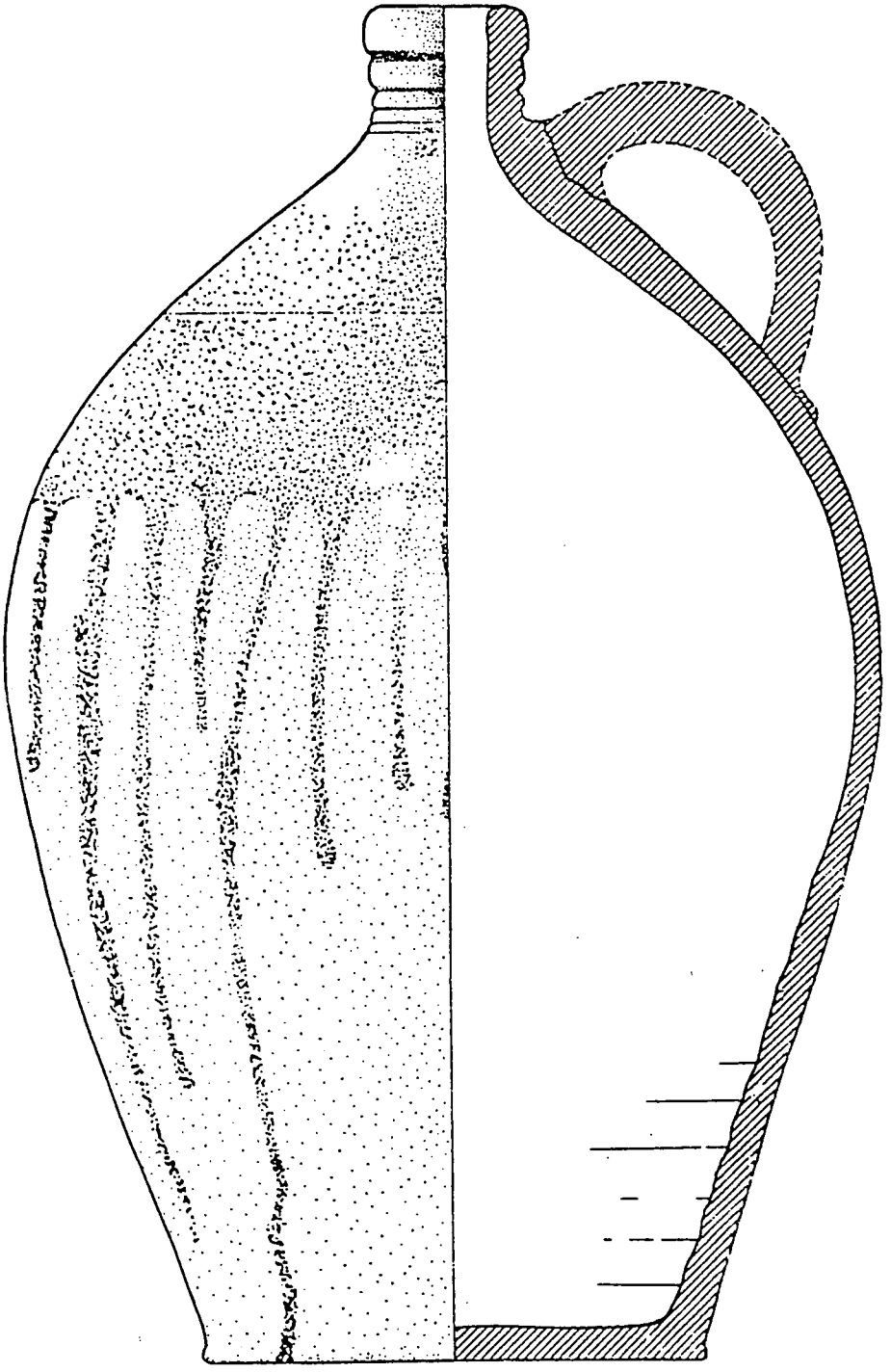
Appendix IV

Hugh Smith, H. C. Smith
A Guide to Specific Characteristics

A definite change occurred in the stoneware forms made for the Smith merchants during their ownership of the Wilkes Street Pottery. While ovoid jugs and melon-shaped jars continued to be made as during Swann's time, straight-sided butter and preserve jars made their first appearance. This information as well as all that is contained in this appendix are based on examination of several dozen surving vessels marked with the various Smith stamps and numerous sherds from the Wilkes Street Pottery Site.

While Swann's decoration might be considered timid, the decoration of the Smith period could be called exuberant. Curving C-scroll vines with graduated leaves, painted with a thick brush and a flourish, represent some of the finest decoration ever to come from the pottery. On jars bearing the merchant's mark "H. C. Smith Alexa. D. C.", the first pair of leaves in each cluster is often exaggerated in size, and sweeps back over the much smaller, connecting graduated leaves which follow on the stem. The vine itself may undulate or be painted on a horizontal plane, and very often fills the surface of the jar's top half. Extremes in shading are also a significant feature of the Smith period. Shading of leaves and flowers, swags and tassels was controlled by the amount of cobalt pigment applied by brush. Color was usually darkest at the leaf tip, gradually becoming lighter or disappearing altogether at its base.

The most noteworthy new decoration of the Smith era, however, was the "Alexandria motif" design (see Appendix II), which appears to be unique to Alexandria and whose presence on a vessel marks it as being of such origin.



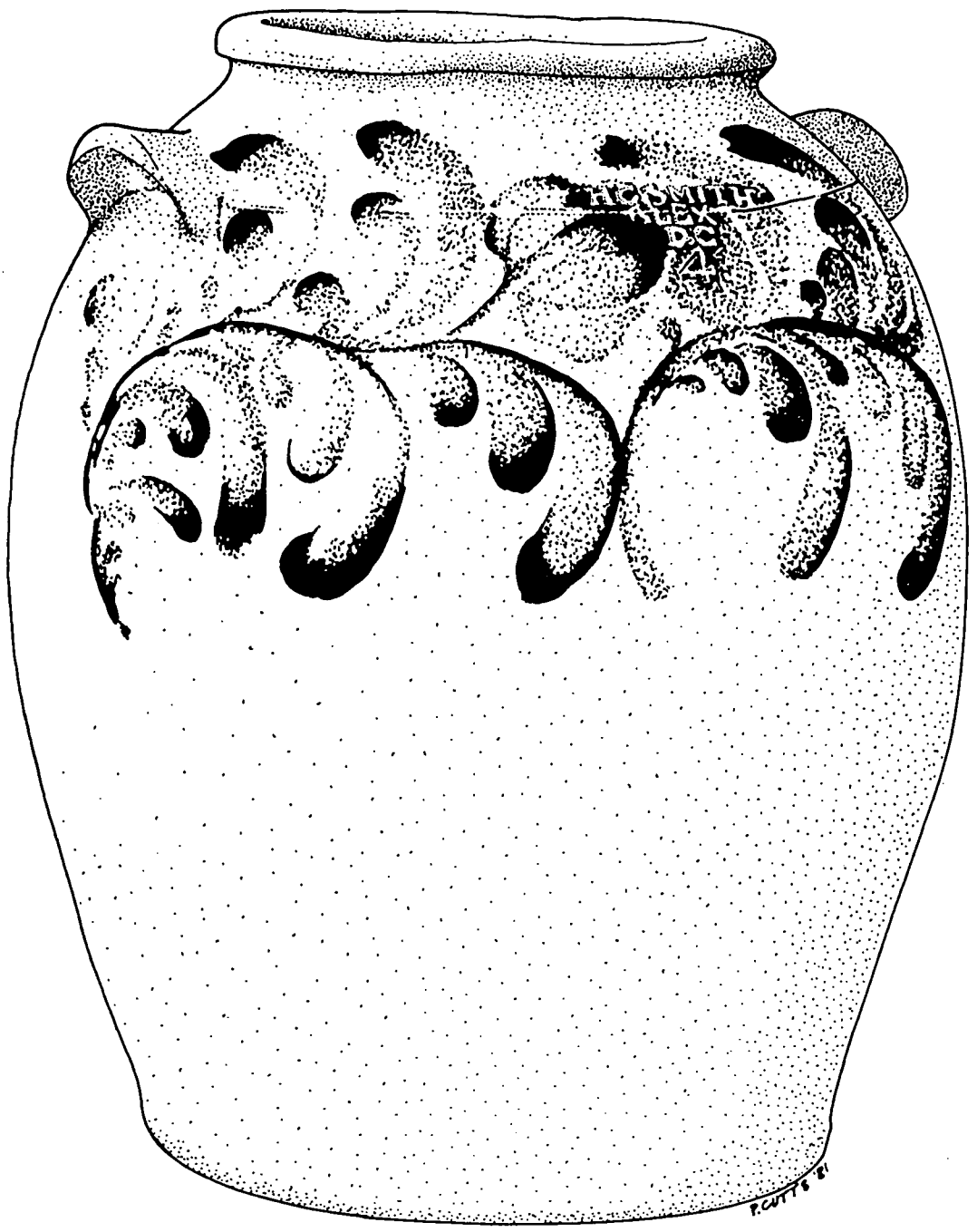
JUG

MARK: H. Smith & C.
HEIGHT: 40 cm.
RIM DIAM.: 4 cm.

FORM: It is not unusual to find ovoid jugs in the late 1820's and early 1830's which are similar in shape to those made earlier by Swann. This would support the theory that some of the Black potters who worked for Swann continued to work for the Smiths after 1825. While the general shapes are similar, the necks are totally different. During Smith's period, the neck forms are usually narrower and smaller and the rims are much plainer. The rim illustrated is one of the more common of the jug rims made for H. Smith & Co.

DECORATION: No jugs during the Smith management of the Pottery are known to have had any iron or cobalt decoration.

HANDLES: Strap handles are usually pulled from the shoulder as opposed to being pulled from the base of the neck as in Swann's period. Jug handles are usually plain with only one groove or ridge down the center of the handle and an occasional fingerprint at the base.



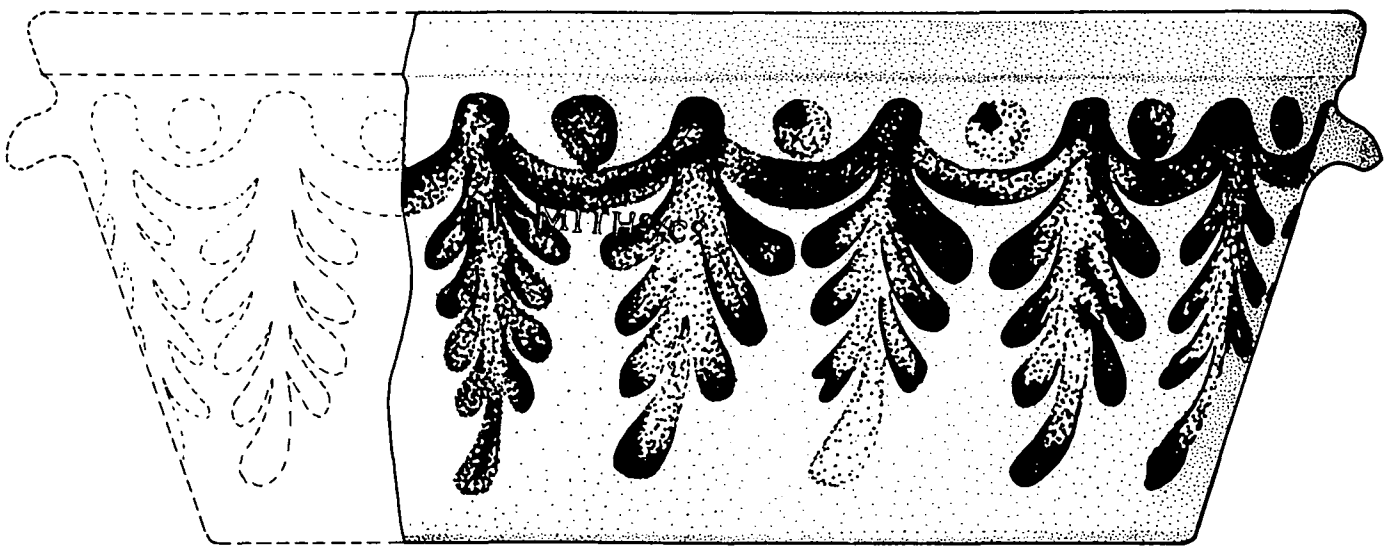
JAR

MARK: H. C. SMITH
ALEX.
D.C.
HEIGHT: 38 cm.
RIM DIAM.: 18.5 cm.

FORM: The four-gallon jars that were manufactured at the Wilkes Street Pottery during the Smiths' proprietorship were distinctive by their full-blown, melon shapes and simple rounded rims.

DECORATION: Curving C-scroll vines with graduated leaves and separate but connecting clusters applied on these jars. The vines sometimes terminate in a bud or blossom, as illustrated.

HANDLES: Lug handles are small and flare up at a slight angle for easy gripping.



MILK PAN

MARK: H. SMITH & C.
HEIGHT: 12.5 cm.
RIM DIAM.: 30 cm.

FORM: Milk pans made for H. Smith & Co. were broad and shallow with flared sides. The flattened rims were typically squared or rounded.

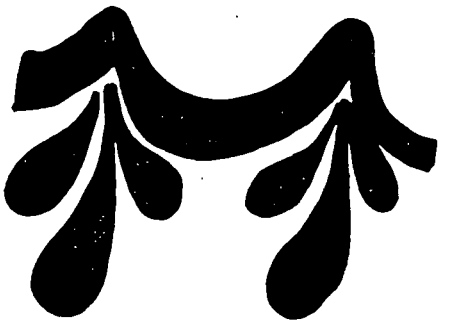
DECORATION: The swag and tassel represents one of the most popular motifs used by Smith. In this example, dots are added to an already elaborate interpretation of a simple theme.

HANDLES: Two small handles are attached horizontally under the rim.

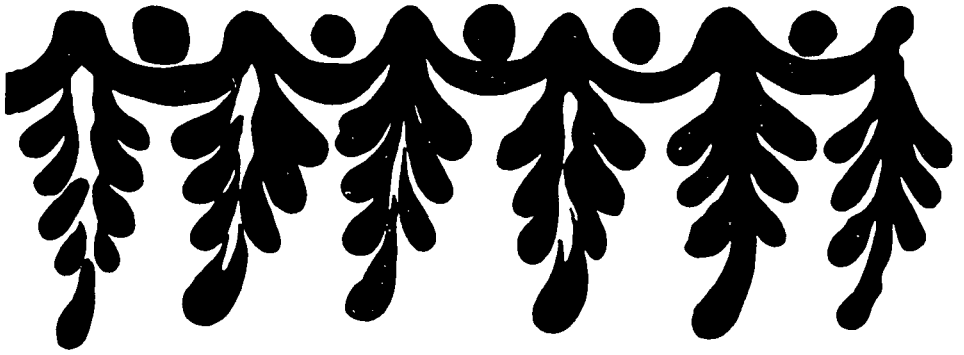
Elements of Design During the H. SMITH & CO. Period
Showing Development of Swag and Tassel Motif

Simple swag

Simple tassel



Simple swag and tassel

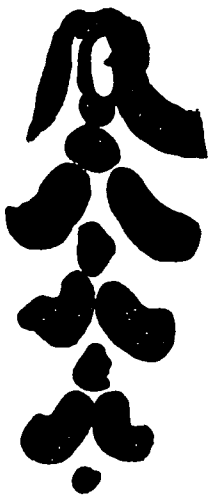


Complex swag and tassel

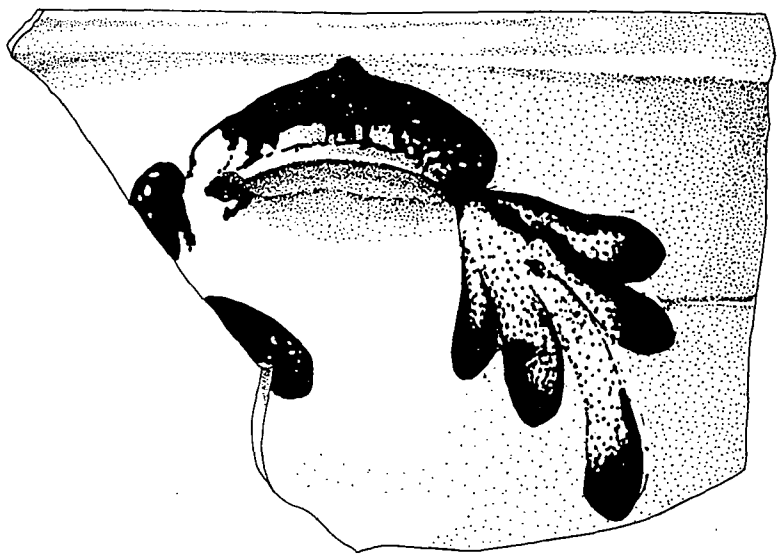
Variations of the Swag and Tassel Motif During the H. SMITH & CO. Period

Tassels or "sprigs" are often repeated separately on the backs of jars or milk pans in upright horizontal patterns

Wave and tassel



Floral spray



Tassels as decoration at handle terminals

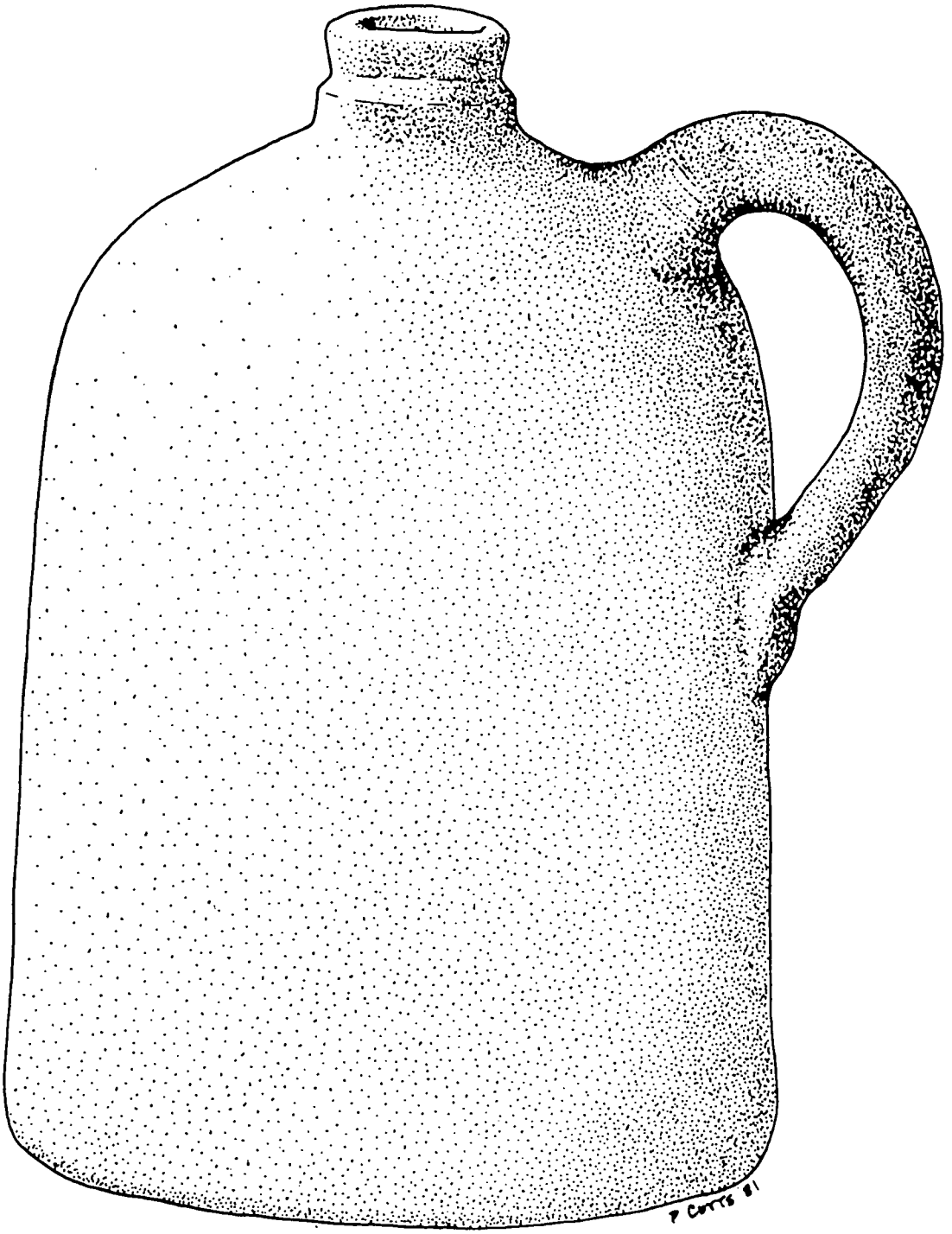
Appendix V

B. C. Milburn
A Guide to Specific Characteristics

An accomplished thrower and decorator, Benedict C. Milburn introduced slip-trailing as a decorative technique on Alexandria stoneware sometime after 1846. Examination of about seventy intact vessels marked as Milburn-made, along with a few marked sherds recovered from the Wilkes Street Pottery Site, provide our knowledge of Milburn's wares.

Milburn's earliest decorations, which appear on vessels marked " B. C. Milburn, Alexandria D. C. ", are all applied with a brush (see Appendix VII). After the City's retrocession from the District of Columbia in 1846, he logically dropped "D. C." from his marker's mark. These are numerous surviving examples of his slip-trailed designs produced from then until his death in 1867. After his death this decorative technique was not continued by Milburn's sons. S. C. Milburn brush-painted floral, leaf and sprig designs on some vessels, but most of the pottery stamped with his name and that of his brother, W. Lewis, was undecorated.

On B. C. Milburn's stoneware, whether brushed or slip-trailed, the primary decorations are usually symmetrical, that is they would produce a mirror image if cut in half on a vertical axis. He continued the use of flower, graduated leaf, swag, tassel, chain, zigzag and dot in his ornamentation. Often he combined two or three designs on a single piece. In both his brush and slip work he used a modified " Alexandria motif " (see Appendix II), with the central flower appearing as a tulip, sunflower, or other plant. Shading appears in his brushed work, but not in slip-trailed decoration.


P Cotts 81

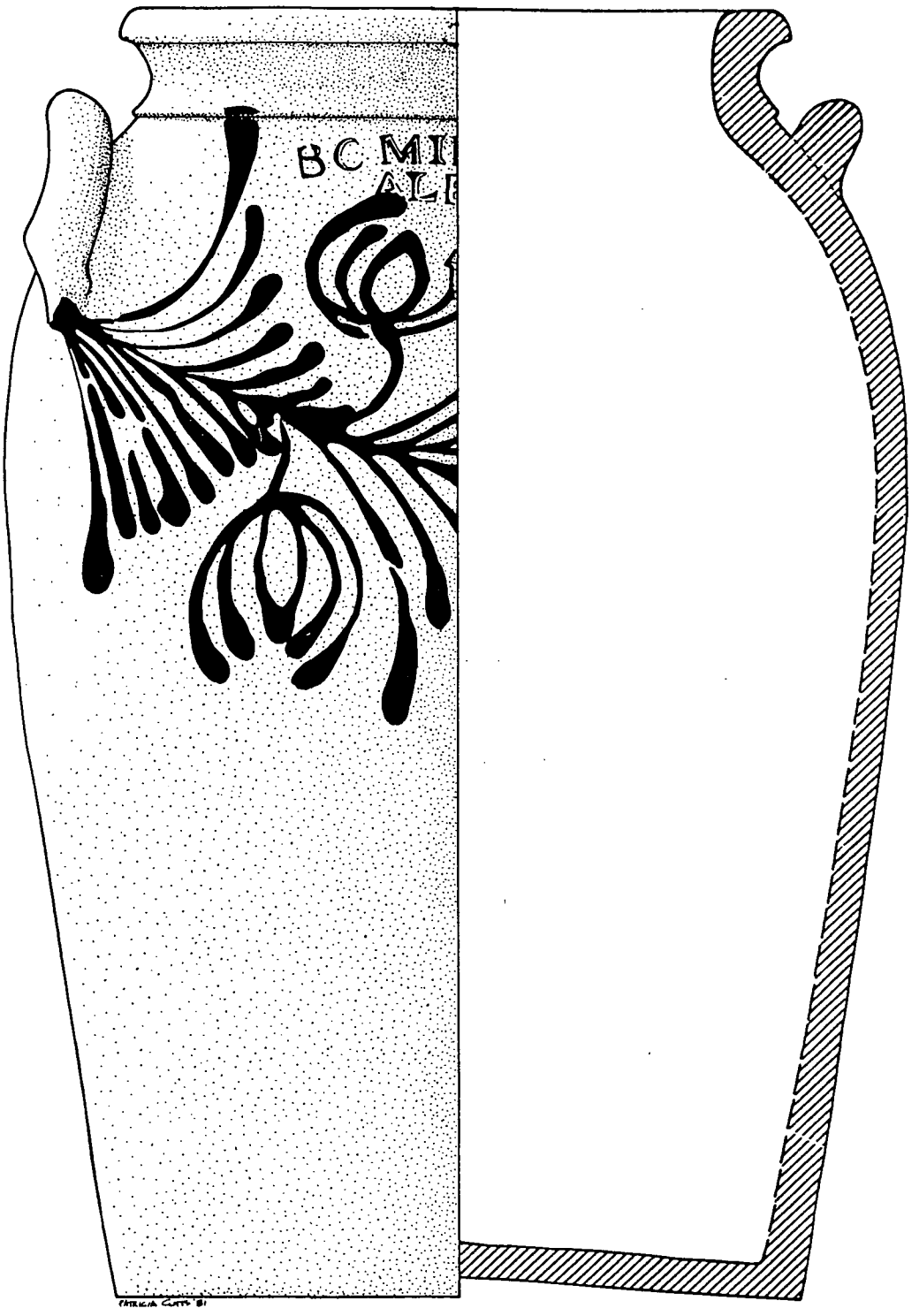
JUG

MARK: B.C. MILBURN
ALEX.
HEIGHT: 23.5 cm.
RIM DIAM.: 3 cm.

FORM: Milburn's late jug forms are straight-sided and sometimes taper gently outward at the base. In the illustration, the short rim flares outward and an angular collar thickens out at the shoulder.

DECORATION: None. The body looks dry and has a brown surface. Since there is no gloss, this jug probably had little or no contact with salt during firing of the kiln.

HANDLE: Milburn handles are usually attached at the shoulder. They are plain with only one groove or ridge down the center of the handle. An occasional fingerprint appears at the base.



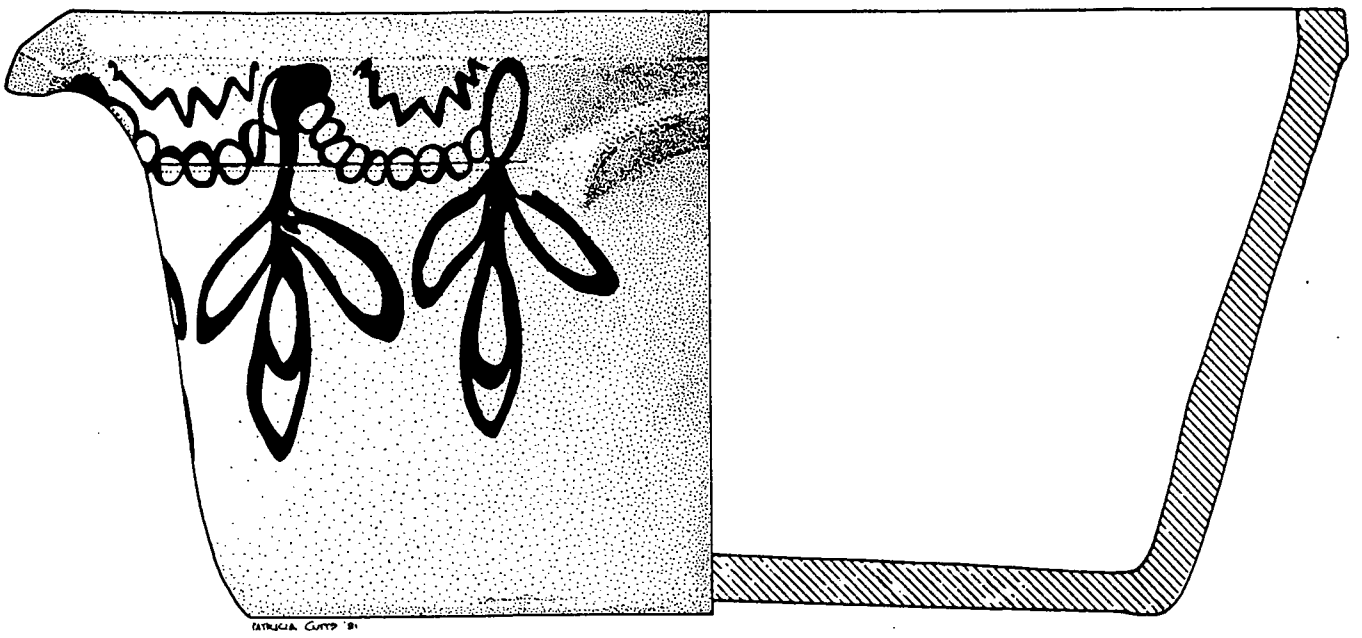
JAR

MARK: B. C. MILBURN
ALEX.
HEIGHT: 16.5 cm.
RIM DIAM.: 31 cm.

FORM: Milburn's jars are less ovoid than earlier examples made during the Swann and Smith periods. While the sides of jars become straighter, the shoulders remain rounded as in this transitional piece. His earlier rims tend to be rounded while later ones are squared off. A characteristic of both types is the sharp, mechanical ridge left at the base of jar collars by a rim-forming tool.

DECORATION: B. C. Milburn is the first Alexandria stoneware potter at the Wilkes Street Site to have adopted slip-trailing as a decorating technique. It is probable that he developed this technique sometime after 1847 as no known examples are stamped with his earliest mark "B.C. MILBURN/ALEX./D.C.", which predates 1846. While other potters in the region were incorporating slip with their brushed decorations, Milburn may be the Virginia potter to have used a quill for entire designs.

HANDLES: The handles on this pot are unusual because they are thrown on a wheel.



MILK PAN

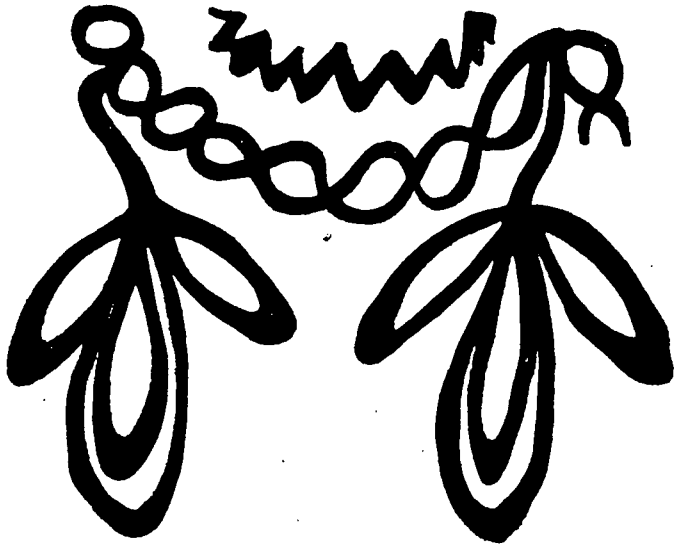
MARK: B. C. MILBURN
ALEX.
HEIGHT: 14.5 cm.
RIM DIAM.: 30 cm.

FORM: Milk pan shapes do not change significantly between the Smith and B. C. Milburn periods. However, by the late 1860's pans made by S. C. Milburn become sharply angular with squared, barely-defined rims.

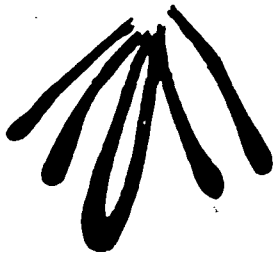
DECORATION: In the illustration, Milburn adapts a variety of motifs (swag and tassel, zigzag, chain and a stylized blossom) in his decoration. The distinctive linear characteristics are given by the technique used, in this case, with a slip cup and quill. Typically, a counterpart of the design is placed on the back (i.e. one simple swag is combined with a single loop tassel).

HANDLES: Lug handles are attached horizontally under the rim. Milburn's handles are usually shaped by hand and not thrown on the wheel.

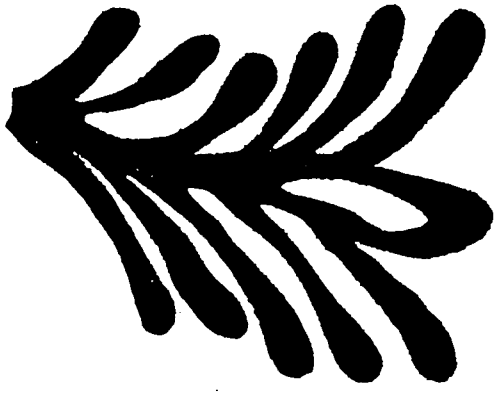
B. C. Milburn Elements of Decoration



Zig zag and chain swags with looped tassel

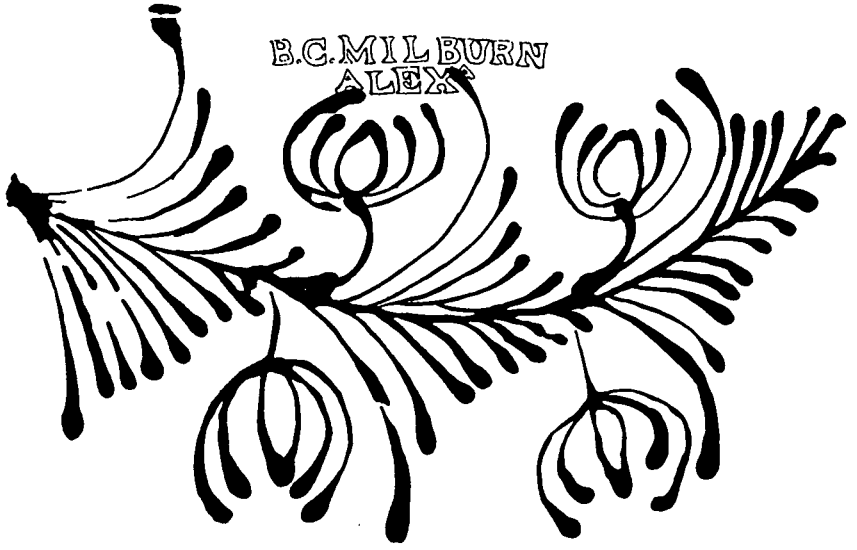


Floral motifs appear in tassel form

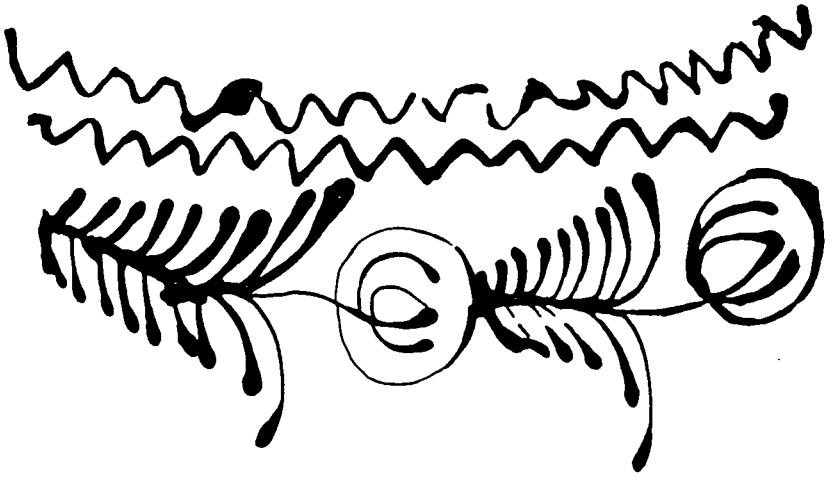


The graduated leaf motif becomes stylized

Milburn's Elaborate Decorations on the Front and Back of a Three Gallon Jar



Open flower forms appear on front



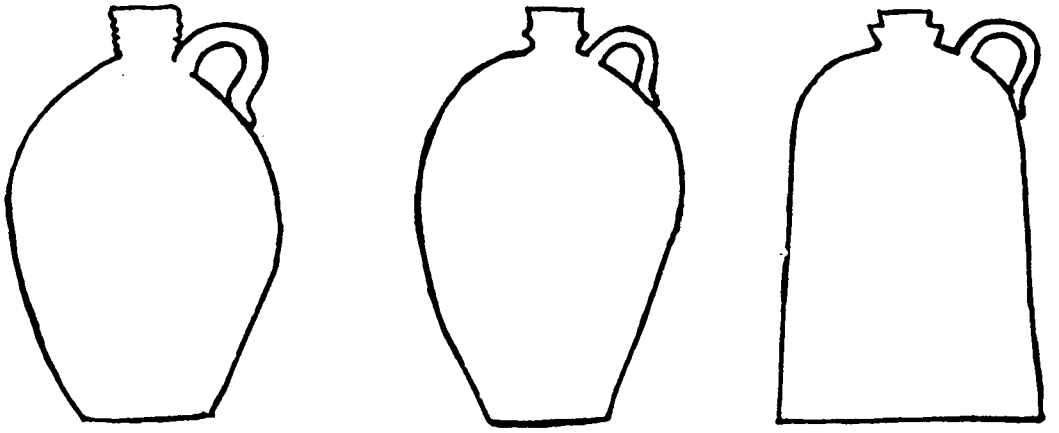
Closed flowers are painted on the back. The blossoms could be based on one of a number of flowers. Most often, Milburn uses tulips, fuschias, sunflowers and rosettes. The secondary decoration, with zigzag and closed blossom, is almost as ornamental as the front.

Appendix VI

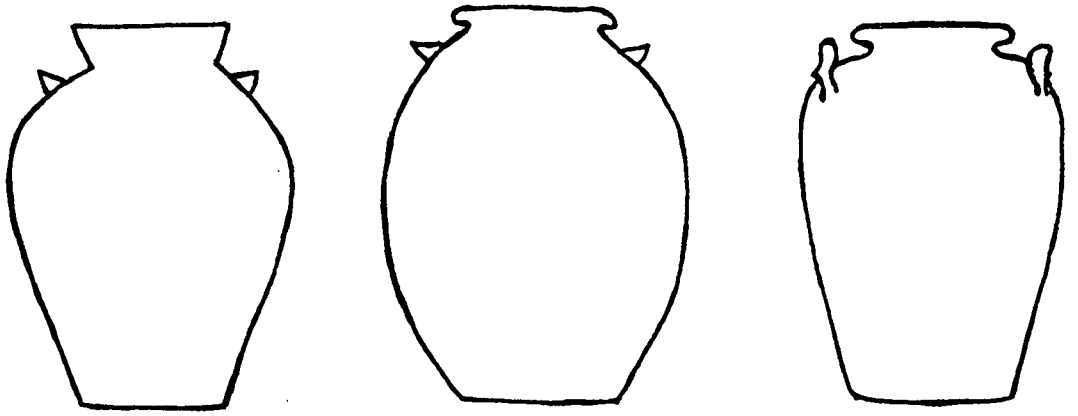
Comparative Forms of Alexandria Stoneware Periods

J. SWANN	H. SMITH & CO.	B.C. MILBURN

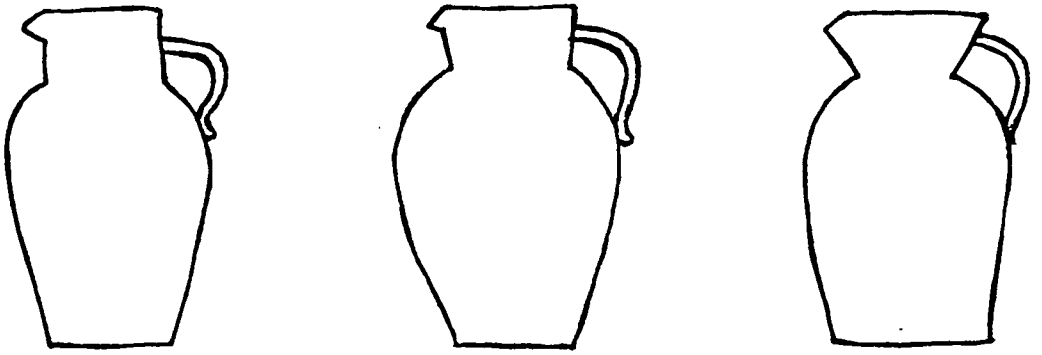
JUG



JAR



PITCHER



APPENDIX V

RESUMES OF KEY PROJECT PERSONNEL

R. CHRISTOPHER GOODWIN, Ph.D.

PRESIDENT & CEO

Dr. R. Christopher Goodwin, is President and Director of Research of R. Christopher Goodwin & Associates, Inc., a preservation planning and research and compliance firm with offices in Frederick, Maryland, New Orleans, Louisiana, and Tallahassee, Florida. A native of Maryland, he is a former Yale Peabody Museum Research Associate (1976) and Smithsonian Institution (1979-1980) Research Fellow and Scholar-in-Residence. Dr. Goodwin holds degrees in Anthropology/Archeology from Tulane (B.A.), Florida State (M.S.), and Arizona State (Ph.D), Universities.

Dr. Goodwin is recognized as one of the nation's leading experts in cultural resource management. He has been a contractor to the U.S. Army Corps of Engineers (Baltimore, Memphis, New Orleans, Pittsburgh, Savannah, and Vicksburg Districts), to the Naval Facilities Engineering Command, and to the Department of Defense on numerous projects. During the past ten years, he has served as Principal Investigator for major cultural resource investigations conducted by his firm in the Mid-Atlantic, Southeastern, Western, and Caribbean Regions. These projects have included such large-scale efforts as the architectural and archeological investigation at Baltimore's Oriole Park at Camden Yards stadium site; development of Cultural Resource Master Plans for Fort Detrick, Ft. George Meade, and Aberdeen Proving Ground, Maryland; and, Phase II and III investigations of the steamship *Columbus*, in Maryland.

Dr. Goodwin's expertise also has been called upon for historic preservation planning projects, and for industrial and governmental agency compliance with federal and state laws and regulations governing archeological and historic sites. He has served as Principal Investigator on preservation and compliance projects for the National Capital, Southeast, and Southwest regions of the National Park Service (NPS); the Department of Energy (DOE); Her Majesty's Service, U.K.; the Louisiana Division of Archaeology; major utility companies, including Allegheny Power, ENRON, Texaco, Southern Natural Gas (SONAT), Baltimore Gas and Electric Company, and Peabody Coal; the U.S. Fish and Wildlife Service, Northeast Region; the City of Annapolis; and, the Maryland Historical Trust. The geographic range of research and compliance projects completed under Goodwin's direction encompasses the Leeward Islands, Puerto Rico, the Bay Islands of Honduras, Maryland, Virginia, West Virginia, Pennsylvania, Illinois, Arkansas, Florida, Georgia, Louisiana, Mississippi, California, and Texas. Dr. Goodwin has published widely in the fields of prehistoric and historic archeology, and ethnohistory. His areas of particular expertise include preservation planning, cultural resource management, cultural ecology, prehistoric demography, field methods in archeology, human osteology, and historic archeology. He is a court-qualified expert in both historic archeology and in cultural resource management. He was a recipient of the National Trust for Historic Preservation's National Preservation Honor Award for his work at Maryland's oldest surviving historic building, the Third Haven Meeting House, and of the Anne Arundel County Trust for Historic Preservation's Achievement in Archeology Award in 1992 and 1993. In addition to numerous technical reports and monographs, Dr. Goodwin has contributed articles to numerous scholarly journals, including *American Anthropologist, American Antiquity*, the *Florida Anthropologist*, and *American Scientist*. Dr. Goodwin is listed in *Who's Who in Leading American Executives* and *Who's Who Among Outstanding Americans*.

SUZANNE L. SANDERS, M.A.

SENIOR PROJECT MANAGER

Ms. Suzanne Sanders, M.A., Senior Project Manager, received her Bachelor of Arts degree from SUNY Binghamton in 1984, and her M.A. in Historical Archeology from the College of William and Mary in Virginia in 1988. Ms. Sanders' M.A. thesis focused on vernacular architecture (standing structures); hence, her graduate training was at the interface of archeology and architecture. In addition to field experience in Maryland, Virginia, New Jersey, Florida, North Carolina, and New York State, Ms. Sanders has worked on historic sites in the West Indies. She has had experience with historic sites ranging from the mid-seventeenth century to the twentieth century. Her field work spans the range from Phase I surveys through Phase III data recovery projects. Ms. Sanders also had four years of experience instructing archeological field schools for the College of William and Mary.

Since joining Goodwin and Associates, Inc., Ms. Sanders has participated in Phase II testing at sites in Fairfax County, Virginia; Phase I investigations in Baltimore, Howard, Montgomery, Anne Arundel, and Wicomico Counties, Maryland; and she has worked in Cumberland County, Pennsylvania and Clarksburg, West Virginia. Ms. Sanders has been principal field supervisor for numerous projects, including the Phase II archeological investigations of Pemberton Hall Plantation, Wicomico County, Maryland; Phase I archeological investigation of the Camden Yards Stadium Site in Baltimore, Maryland; for the Gott's Court parking lot in Annapolis, Maryland; the Phase I archeological investigation and architectural recordation of the structures at the Yachting Center complex on Baltimore's waterfront; the Phase II investigation of the Drane House in Accident, Maryland; Phase II and III studies of the Civil War era Signal Hill project area in Manassas, Virginia; the mid-eighteenth century Bachelor's Hope Farm in St. Mary's County, Maryland; at the Shaw and 14th Street urban renewal areas in Washington, D.C.; and at the Icehouse Square project in Gettysburg, Pennsylvania.

ELLEN SAINT ONGE, M.A.A.

CREW CHIEF

Ellen Saint Onge received her B.A. in Anthropology from the University of Maryland at College Park in 1988. She received her Master's degree in Applied Anthropology from the University of Maryland in May 1994.

As an undergraduate, Ms. Saint Onge was a Field Technician and Public Interpreter at Historic Annapolis, and was a research assistant at the University of Maryland/Historic Annapolis Archaeology Lab. In graduate school, she served as a Teaching Assistant for Archeology and Physical Anthropology.

From 1978 to 1993, Ms. Saint Onge worked on a number of Phase I, II, and III excavations in Maryland, Virginia and Washington, D.C. These included historic sites in Prince George's County and Alexandria. She has done land owner research and contact, and served as a crew chief on Phase I projects.

Since joining R. Christopher Goodwin & Associates, Inc., Ms. Saint Onge has worked on a variety of sites in Maryland, Pennsylvania, Virginia, West Virginia, Florida, and Puerto Rico. She has served as an Archaeological Field Technician and Lab Technician. She has served as a Crew Chief on historic sites in Pennsylvania and Virginia, and prehistoric and historic sites in Puerto Rico.

As part of her graduate work Ms. Saint Onge worked on a cultural resources data management project for the Atlantic Division of the Navy. This involved identifying archeology and cultural resource work that has been done on Naval installations, creating an annotated bibliography and a database for the information, and creating a set of maps for each installation. She has worked on a similar data management project for the Army Corps of Engineers, that has an end goal of NAGPRA compliance.

MARTHA R. WILLIAMS, M.A., M.ED.

HISTORIC SITE SPECIALIST

Ms. Martha R. Williams, a graduate of Lebanon Valley College, holds advanced degrees in Education from the University of Pennsylvania and in Applied History from George Mason University. Her extensive experience in education, cultural resource management, and historical archeology includes a field school at Colonial Williamsburg (1972); employment with the National Park Service as an archeological laboratory technician; appointment as a field archeologist for the 1991, 1992, 1994, and 1995 excavations at Fort Raleigh, North Carolina; and as a volunteer archeologist at the APYA's Jamestown Rediscovery project. As co-director of the Fairfax County High School Seminars in Historical Archaeology (1973-1987), she managed 15 archeological projects, ranging from Phase I reconnaissance studies to Phase III data recovery efforts. In 1987, she co-authored the Heritage Resources Management Plan for Fairfax County, Virginia.

Since joining R. Christopher Goodwin & Associates, Inc., Ms. Williams has served as historian, project manager, and public interpretation specialist for numerous studies conducted by the firm. She has co-authored reports for projects in Anne Arundel, Baltimore, Charles, Frederick, Harford, Prince Georges, St. Mary's, Talbot, and Washington Counties, and Baltimore City in Maryland; in Arlington, Fairfax, Henrico, Halifax, Westmoreland, and Prince William Counties in Virginia; and in the District of Columbia, Pennsylvania, North Carolina, Mississippi, and Puerto Rico. As public interpretation specialist, she designed and executed successful public information activities for the company's Stadium Project in Baltimore; the Drane House project in Garrett County, Maryland; the Icehouse Square project in Gettysburg, Pennsylvania; at the Gott's Court site in Annapolis, Maryland; at Pemberton Plantation in Salisbury, Maryland; and for two public information and training projects under the Legacy Program of the Department of Defense.

Ms. Williams also is actively involved with professional preservation organizations. She has served as Vice-President of the Archeological Society of Virginia, and currently sits on the ASV Board of Directors. She also serves on the Archeological Advisory Board of the Jamestown Rediscovery project. She has written for numerous publications, including the *Yearbook* of the Historical Society of Fairfax County, *Museum News, Interpretation* (NPS), the *Quarterly Bulletin* of the Archeological Society of Virginia, *American Antiquity*, and the Journal of Mid-Atlantic Archaeology. In 1991, she received a Distinguished Service Award from the Fairfax County History Commission for her contributions to local history and preservation. She was recognized in 1992 by the Society for Historical Archaeology for her two-year service as Chair of that organization's Committee on Public Education, a position that she currently holds. In 1994, Ms. Williams was an invited participant in the "Save the Past for the Future II" conference, sponsored by the Society for American Archeology.